# AIR CONDITIONER

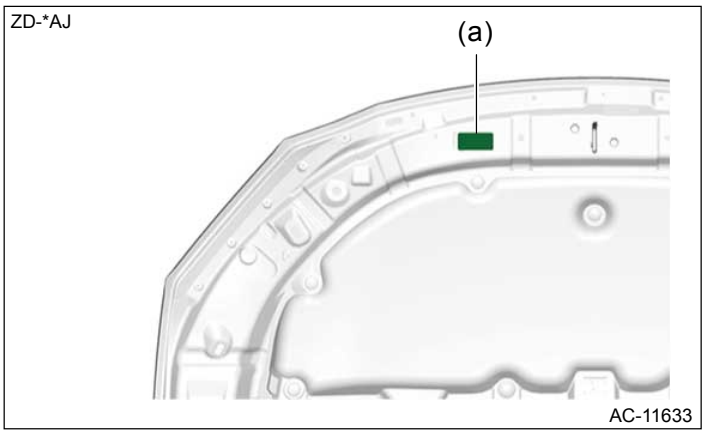
# AC

## CAUTION

- When performing service operation, refer to "Repair Contents" in "General Description". Ref. to REPAIR CONTENTS>Repair Contents.
- Refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section. Ref. to AIRBAG SYSTEM>General Description>CAUTION.
- Use SUBARU genuine grease, the recommended or equivalent. Do not mix grease etc. of different grades or manufacturers.
- When performing work on the sensors or modules, be careful of the following.
  - Before disconnecting electrical connectors, be sure to disconnect the ground terminal from the battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
  - Do not apply any impact. If the parts are accidentally dropped, replace with a new part.
  - Do not expose to high-temperature and humidity.
- When replacing the parts provided with memory functions, record the memory contents before disconnecting the ground terminal from the battery sensor.
- Apply grease onto sliding or revolving surfaces before installation.
- Some vehicle components are extremely hot immediately after driving. Be wary of receiving burns from heated parts.

## 1. A/C SYSTEM

Before maintenance, check the refrigerant and compressor oil for the A/C system described on the label (a). Use the listed refrigerant, compressor oil and tools dedicated for the A/C system.




## 2. COMPRESSOR OIL

- Use the compressor oil listed on the label. The compressor oil is not compatible with any other brands of compressor oil.
- Compressor oil is very hygroscopic. When replacing or installing/removing A/C parts, immediately isolate the oil from atmosphere using a plug or tape. In order to avoid moisture, store the oil in a container with its cap tightly closed.

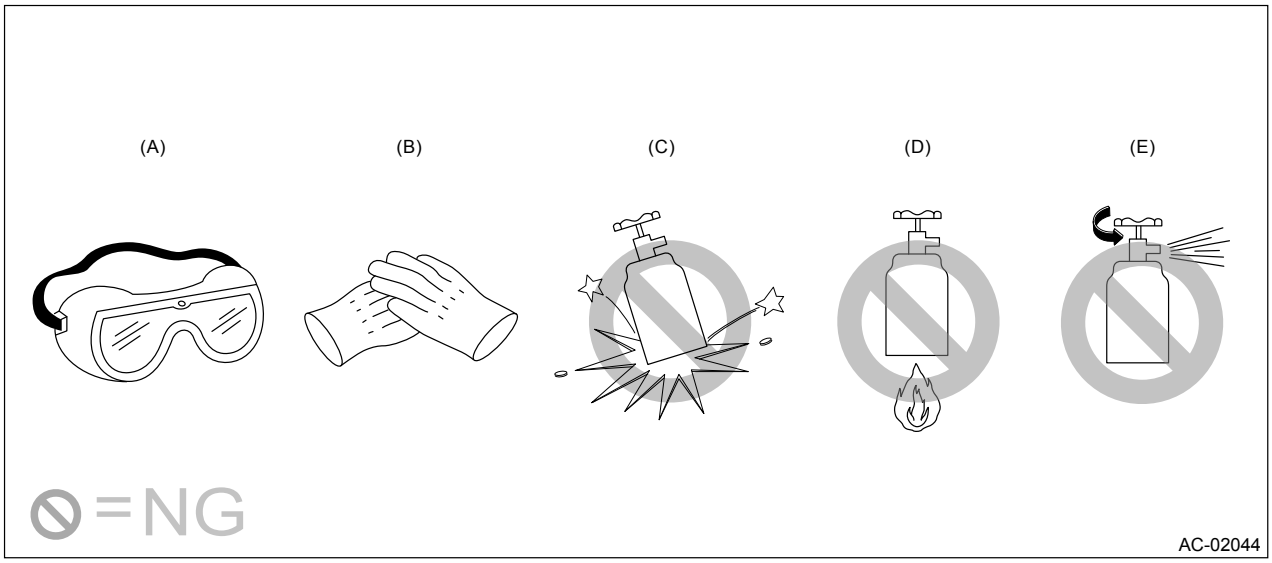
## 3. REFRIGERANT

- Use the refrigerant listed on the label.
- If an incorrect or no refrigerant is used, it will result in poor lubrication and the compressor itself may be damaged.

## 4. HANDLING OF REFRIGERANT

- The refrigerant boils at approx. −30°C (−22°F). When handling it, be sure to wear protective goggles and protective gloves. Direct contact of the refrigerant with skin may cause frostbite.
  If the refrigerant gets into your eye, avoid rubbing your eyes with your hands. Wash your eyes with plenty of water, and receive medical treatment from an eye doctor.

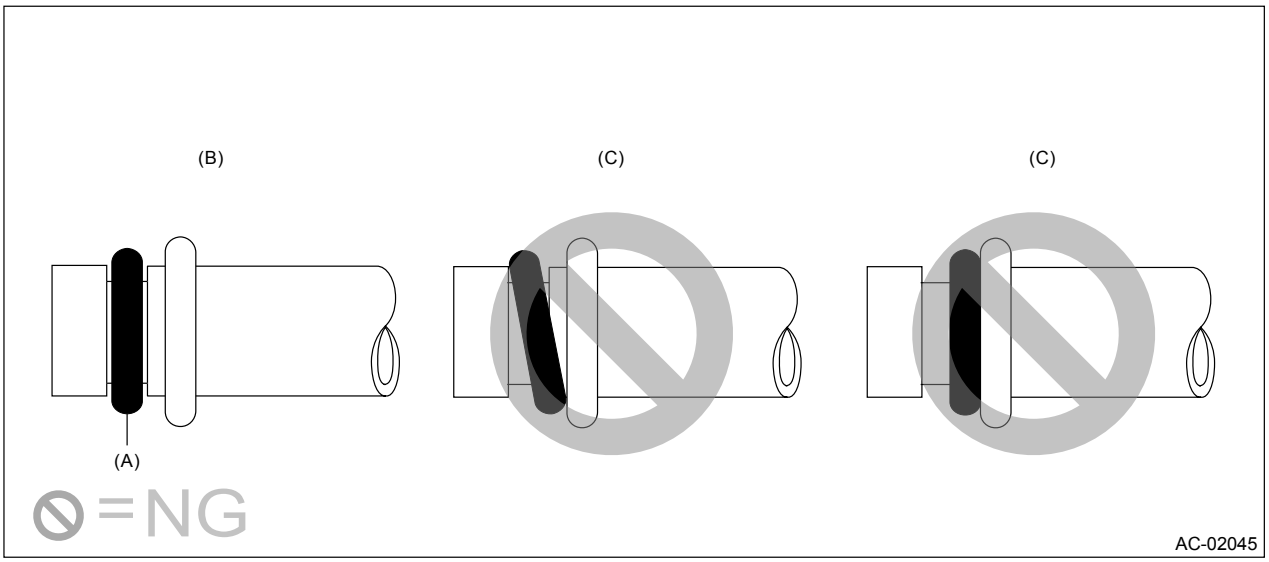
- Do not heat a service can. If a service can is directly heated, or put into boiling water, the inside pressure will become extremely high. This may cause the can to explode. If a service can must be warmed up, use warm water of 40°C (104°F) or less.
- Do not drop or impact a service can. (Observe the precautions and operation procedure described on the refrigerant container.)
- When the engine is running, do not open the high-pressure valve of manifold gauge. The high-pressure gas will back-flow resulting in an explosion of the can.
- Provide good ventilation and do not work in a closed area.
- In order to prevent global warming, avoid releasing refrigerant into the atmosphere. Using a refrigerant recovery system, discharge and recycle the gas.




(A) Goggles
(B) Gloves
(C) Do not apply impact.
(D) No direct heat on container
(E) Do not discharge

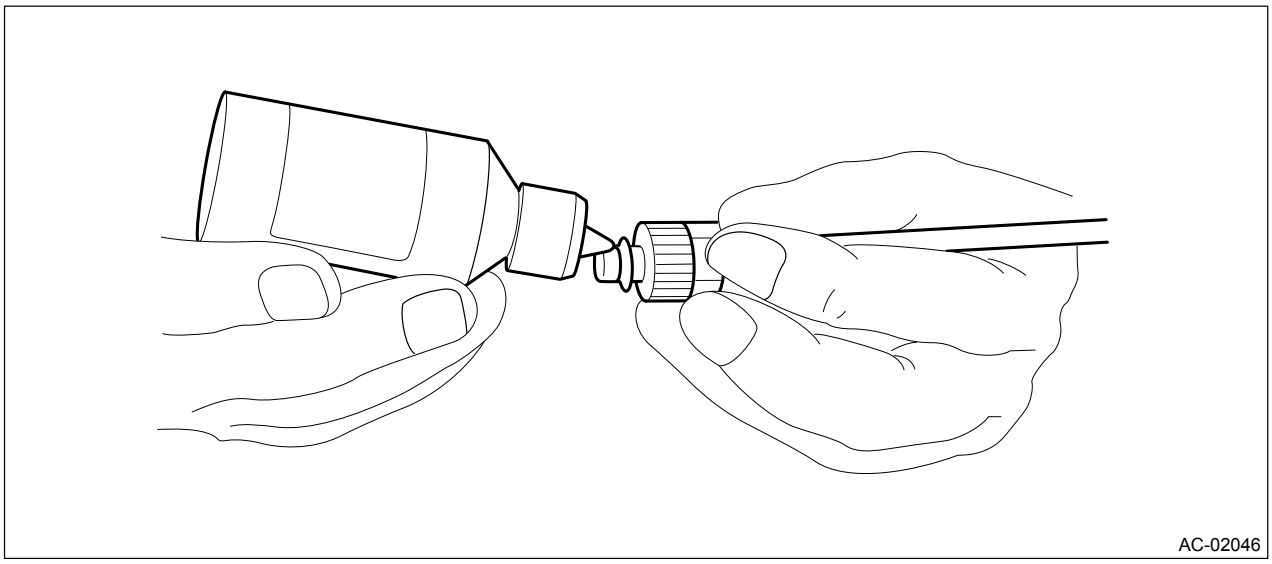
## 5. O-RING CONNECTIONS

- Always use a new O-ring.
- In order to keep the O-rings free of lint which will cause a refrigerant gas leak, perform work without using gloves or waste cloths.
- Apply compressor oil to O-rings to avoid sticking, before installation.
- Use a torque wrench to tighten the O-ring fittings. Over-tightening will result in damage of the O-ring and deformation of the pipe end.
- If the work is interrupted before completing pipe connections, recap the pipes, components and fittings with a plug or tape to prevent foreign matter from entering.
- Visually check the surfaces and mating surfaces of O-rings, threads and connecting points. If a failure is found, replace the applicable parts.
- Install the O-rings straight against the pipe groove.




(A) O-ring (B) OK (C) NG

- Use the compressor oil indicated on the label to lubricate the O-rings.
- Apply oil to the top and sides of O-rings before installation.
- Apply compressor oil to the pipe grooves.




- After tightening, use a clean cloth to remove excess compressor oil from the connections and any oil which may have run on the vehicle body or other parts.
- If any leakage is suspected after tightening, do not tighten the connections further, but disconnect the connections, remove the O-rings, and check the O-rings, threads, and connections.

## AIR CONDITIONER > General Description

## SPECIFICATION

### 1. HEATER SYSTEM

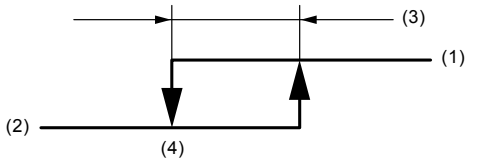
| Item | Specifications | Condition |
|---|---|---|
| | | • Air flow control switch: FOOT<br>• Temperature setting: HI (MAX HOT) |

| | | | |
|---|---|---|---|
| Heating capacity | | 4.52 kW (3,877 kcal/h, 15,422 BTU/h) or more | • Temperature difference between hot water and inlet air: 65°C (149°F)<br>• Hot water flow rate: 360 L (95.1 US gal, 79.2 Imp gal)/h |
| Air flow rate | | 290 $m^3$ (10,243 cu ft)/h or more | • Temperature setting: HI (MAX HOT)<br>• Fan speed: HI (MAX)<br>• FRESH/RECIRC position: FRESH<br>• Air flow control position: FOOT |
| Heater core | Size (width × height × thickness) | 253.5 × 120 × 21 mm (9.98 × 4.72 × 0.83 in) | — |
| Blower motor | Motor type | Magnet | — |
| | Power consumption | 260 W or less | 12 V |
| | Fan type | Sirocco fan | — |
| | Size (diameter × height) | 165 × 70 mm (6.5 × 2.76 in) | — |

## 2. A/C SYSTEM

| Item | | Specifications | Condition |
|---|---|---|---|
| Type of air conditioner | | Reheat air-mix | — |
| Cooling capacity | | 4.0 kW (3,439 kcal/h, 13,647 BTU/h) or more | • Engine: Warmed up<br>• Air vent grille: Full open<br>• A/C switch: ON<br>• Temperature setting: LO (MAX COOL)<br>• Fan speed: HI (MAX)<br>• FRESH/RECIRC position: RECIRC<br>• Air flow control position: VENT |
| Air flow rate | | 445 $m^3$ (15,717 cu ft)/h or more | • Temperature setting: LO (MAX COOL)<br>• Fan speed: HI (MAX)<br>• FRESH/RECIRC position: RECIRC<br>• Air flow control position: VENT |
| Compressor | Type | Fixed capacity | — |
| | Discharge | 74.5 $cm^3$ (2.433 cu in)/rev | — |
| | Max. permissible speed | 9,000 r/min | — |
| | | Recommended materials: ND- | |

| | | | |
|---|---|---|---|
| | Oil | OIL12<br>Capacity: 70 $cm^3$ (4.27 cu in) | — |
| Magnet clutch | Type | Dry, single-disc type | — |
| | Power consumption | 35 W | — |
| Pulley | Type of belt | V-belt 6 PK | — |
| | Pulley diameter (Effective diameter) | 100 mm (3.94 in) | — |
| | Pulley ratio | 1.43 | — |
| Condenser | Type | Corrugated fin (sub cool) | — |
| | Core face area | 0.189 $m^2$ (2.034 sq ft) | — |
| | Core thickness | 16 mm (0.63 in) | — |
| | Radiation area | 4.988 $m^2$ (53.692 sq ft) | — |
| Receiver drier | Effective inner capacity | 190 $cm^3$ (11.59 cu in) | — |
| Expansion Valve | Type | Block | — |
| Evaporator | Type | Double tank | — |
| | Size (Width × Height × Thickness) | 266.3 × 181 × 38 mm (10.48 × 7.13 × 1.5 in) | — |
| Radiator main fan | Motor type | Magnet | — |
| | Power consumption | 200 W | 12 V |
| | Fan outer diameter | 300 mm (11.81 in) | — |
| Radiator sub fan | Motor type | Magnet | — |
| | Power consumption | 200 W | 12 V |
| | Fan outer diameter | 300 mm (11.81 in) | — |
| Idle speed | | AT model: 700±50 r/min<br>MT model: 650±50 r/min | No load |
| | | 700 — 870±50 r/min | A/C ON |
| Pressure switch | Low-pressure switch operating pressure | 219±20 kPa<br>(2.23±0.2 kgf/$cm^2$, 31.8±2.9 psi) | ON → OFF |
| | | $248^{+25}_{-29}$ kPa<br>($2.53^{+0.25}_{-0.3}$ kgf/$cm^2$, $36^{+3.6}_{-4.2}$ psi) | OFF → ON |
| | | $2{,}976^{+50}_{-200}$ kPa<br>($30.35^{+0.51}_{-2.04}$ kgf/$cm^2$, | ON → OFF |

<table>
<tr><td rowspan="4">(Triple pressure switch)</td><td rowspan="2">High-pressure switch operating pressure</td><td>431.5$^{+7.2}_{-29}$ psi)</td><td></td></tr>
<tr><td>2,386±325 kPa<br>(24.33±3.31 kgf/cm$^2$,<br>346±47.1 psi)</td><td>OFF → ON</td></tr>
<tr><td rowspan="2">Middle-pressure switch operating pressure</td><td>1,230±120 kPa<br>(12.54±1.22 kgf/cm$^2$,<br>178.3±17.4 psi)</td><td>ON → OFF</td></tr>
<tr><td>1,520±80 kPa<br>(15.5±0.82 kgf/cm$^2$,<br>220.4±11.6 psi)</td><td>OFF → ON</td></tr>
<tr><td colspan="2">Thermo-control amplifier working temperature</td><td colspan="2"> 

AC-00601<br>(1) ON<br>(2) OFF<br>(3) 1±0.3°C (33.8±0.5°F)<br>(4) 2±0.5°C (35.6±0.9°F)</td></tr>
</table>

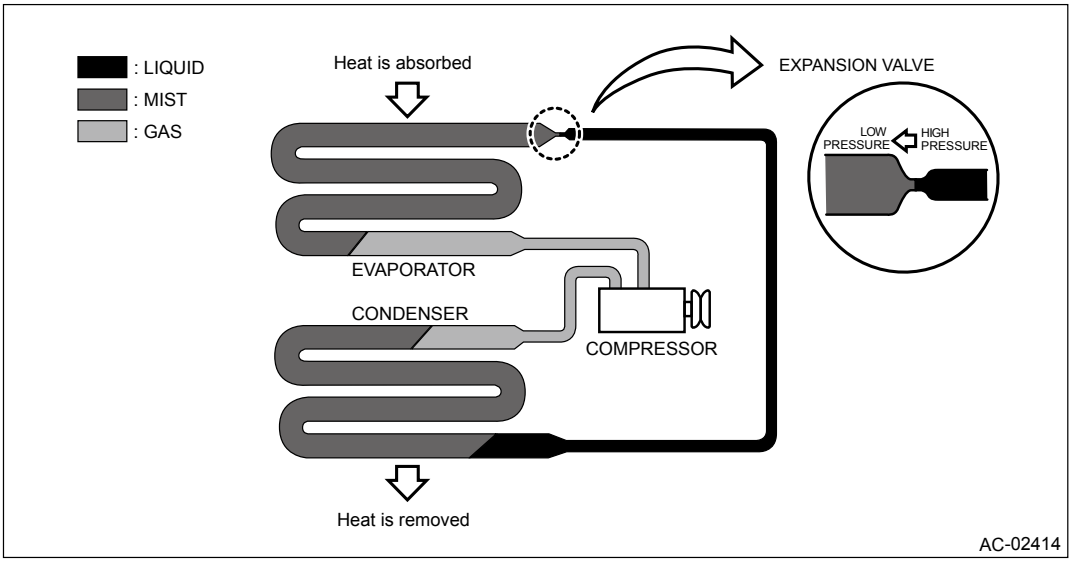
## 3. REFRIGERANT

**Caution:**
**Do not mix different kinds of refrigerant.**

| Item | Recommended and alternative materials | Capacity |
|---|---|---|
| Refrigerant | • Recommended materials: HFO-1234yf | kg (lb) 0.45±0.03 (0.99±0.07) |

## 4. BASIC OPERATION

The cooling system cools down the compartment by using the pipes connecting parts and cycling the evaporative liquid (refrigerant) within the sealed system in a repeated process of “vaporization — liquefaction — re-vaporization”.




| Item | Operation |
|---|---|
| Compressor | Sucks and pressurizes the low temperature, low pressure refrigerant gas that was vaporized at the evaporator by absorbing heat from the compartment, and sends the high temperature, high pressure refrigerant gas to the condenser. |
| Condenser | Cools the high temperature, high pressure refrigerant gas sent from the compressor for condense and liquefaction. |
| Expansion valve | • Sprays the high temperature, high pressure liquid refrigerant from the small hole in order to let the refrigerant expand rapidly to turn it into low temperature, low pressure mist.<br>• The refrigerant amount is adjusted according to the refrigerant vaporization condition in the evaporator. |
| Evaporator | The evaporator turns into a low temperature condition when the mist refrigerant that was turned into a low temperature, low pressure condition at the expansion valve is vaporized in large quantity in the evaporator. Passing air flow through the low temperature evaporator emits cold air. |

## AIR CONDITIONER > General Description

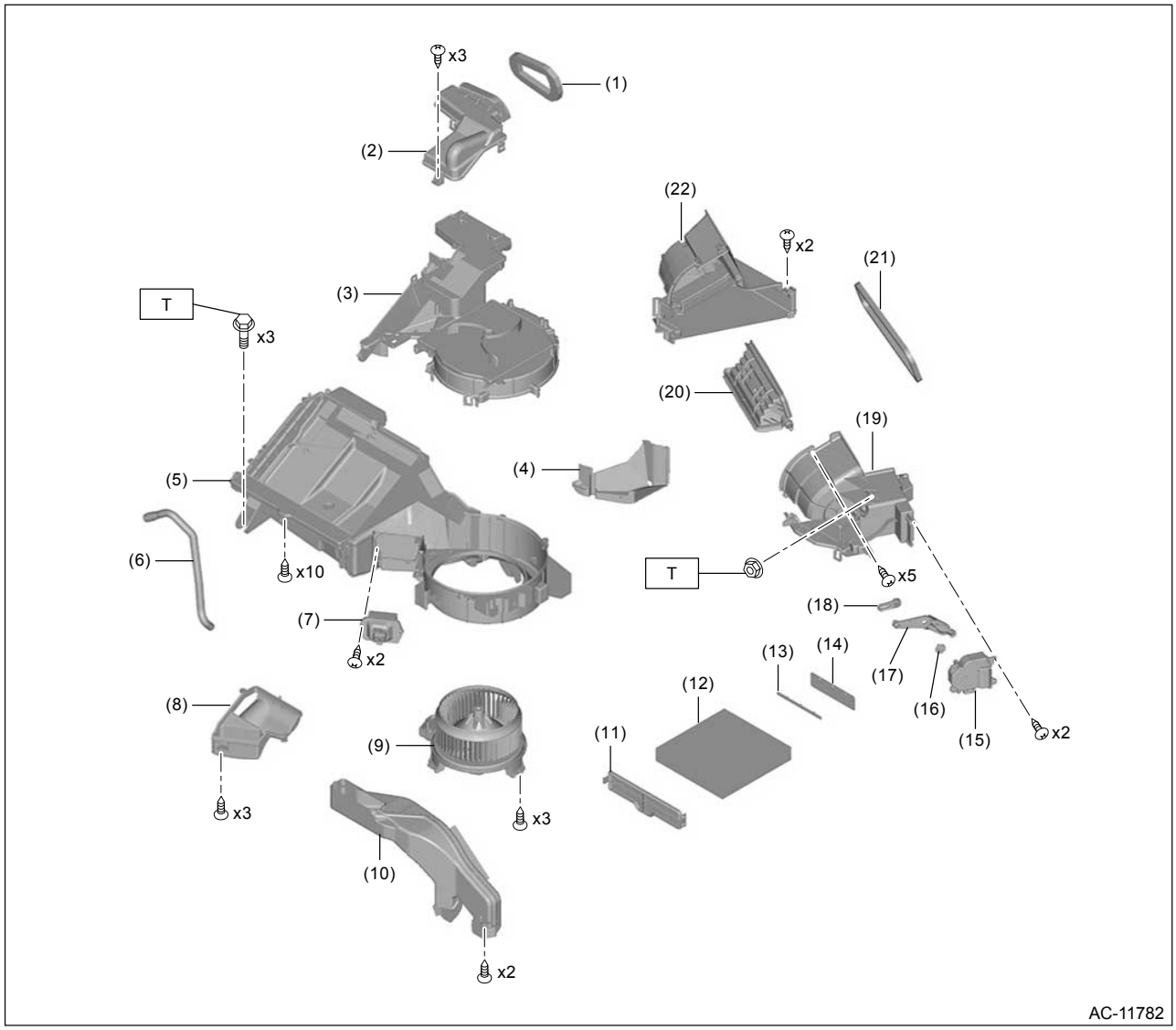
## LOCATION

For location, refer to "Electrical Component Location" for "AIR CONDITIONER (DIAGNOSTICS)" section. Ref. to AIR CONDITIONER(DIAGNOSTICS)>Electrical Component Location.

## AIR CONDITIONER > General Description

## COMPONENT

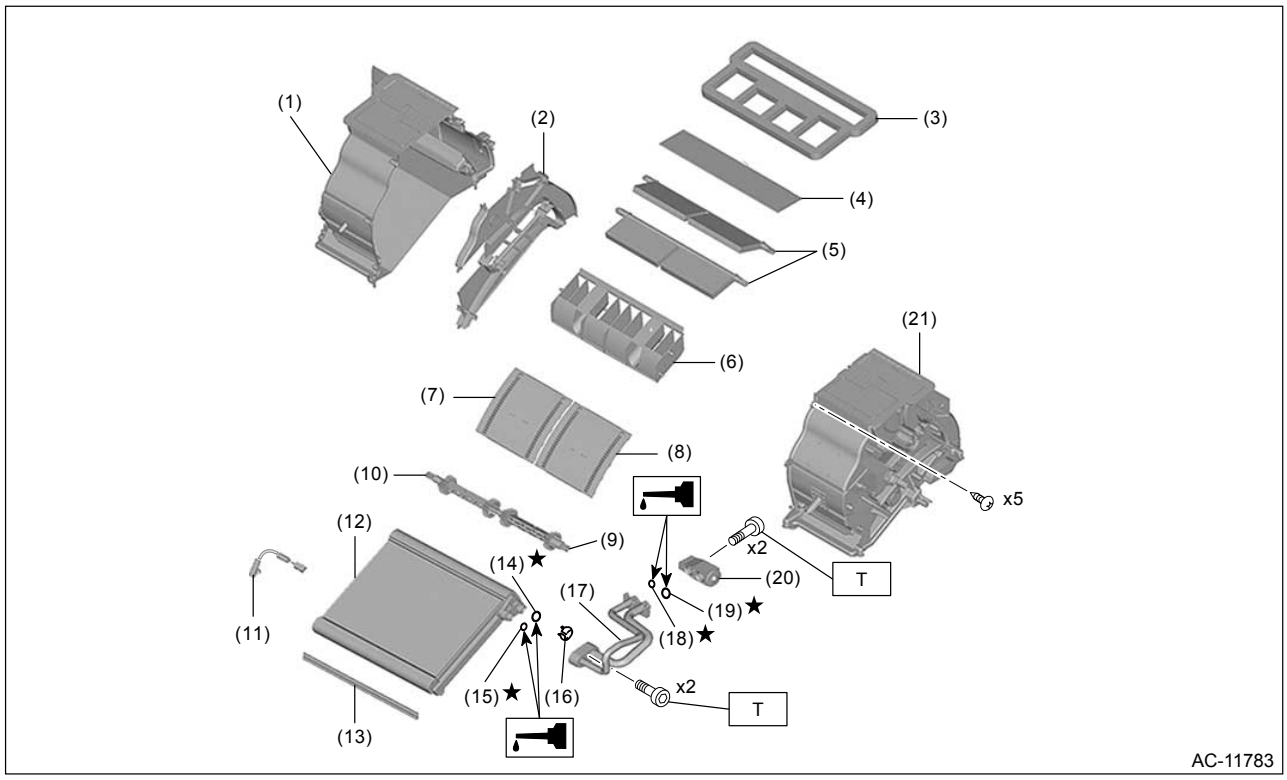
### 1. HEATER AND COOLING UNIT ASSEMBLY




(1) Packing
(2) Cover evaporator
(3) Case blower
(4) Cover drain
(5) Case heater LWR
(6) Hose drain
(7) Power transistor
(8) Duct foot driver
(9) Blower motor ASSY
(10) Duct foot passenger
(11) Filter cover
(12) Filter
(13) Plate
(14) Packing
(15) Motor actuator intake
(16) Tapping screw
(17) Link lever
(18) Link lever
(19) Case blower intake RH
(20) Shutter blower
(21) Packing
(22) Case blower intake LH

***Tightening torque: N·m (kgf-m, ft-lb)***

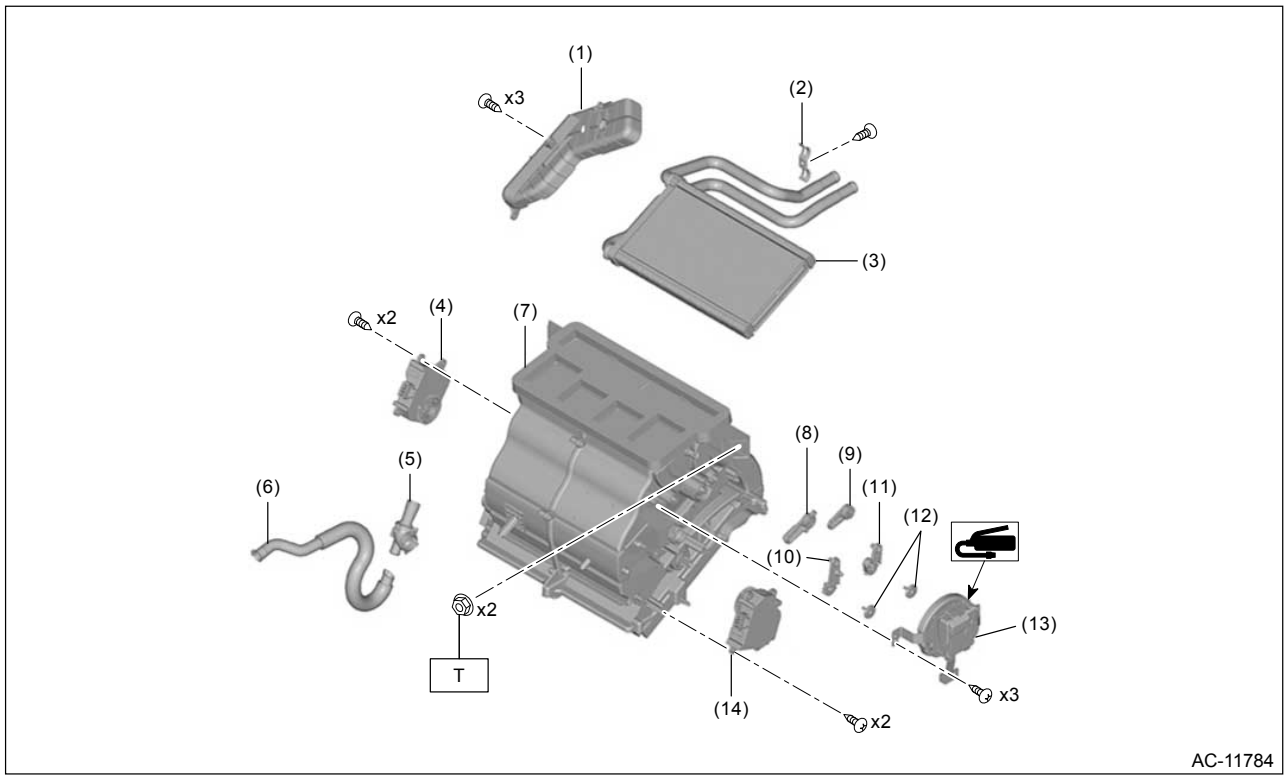
***T: 7.5 (0.8, 5.5)***




(1) Case heater unit LH
(2) Plate
(3) Packing
(4) Cover defroster net
(5) Shutter mode
(6) Guide heater unit
(7) Shutter mix LH
(8) Shutter mix RH
(9) Shaft mix RH
(10) Shaft mix LH
(11) Evaporator sensor
(12) Evaporator ASSY
(13) Packing
(14) O-ring
(15) O-ring
(16) Spacer
(17) Pipe evaporator
(18) O-ring
(19) O-ring
(20) Expansion valve
(21) Case heater unit RH

***Tightening torque: N·m (kgf-m, ft-lb)***

***T: 3.5 (0.4, 2.6)***

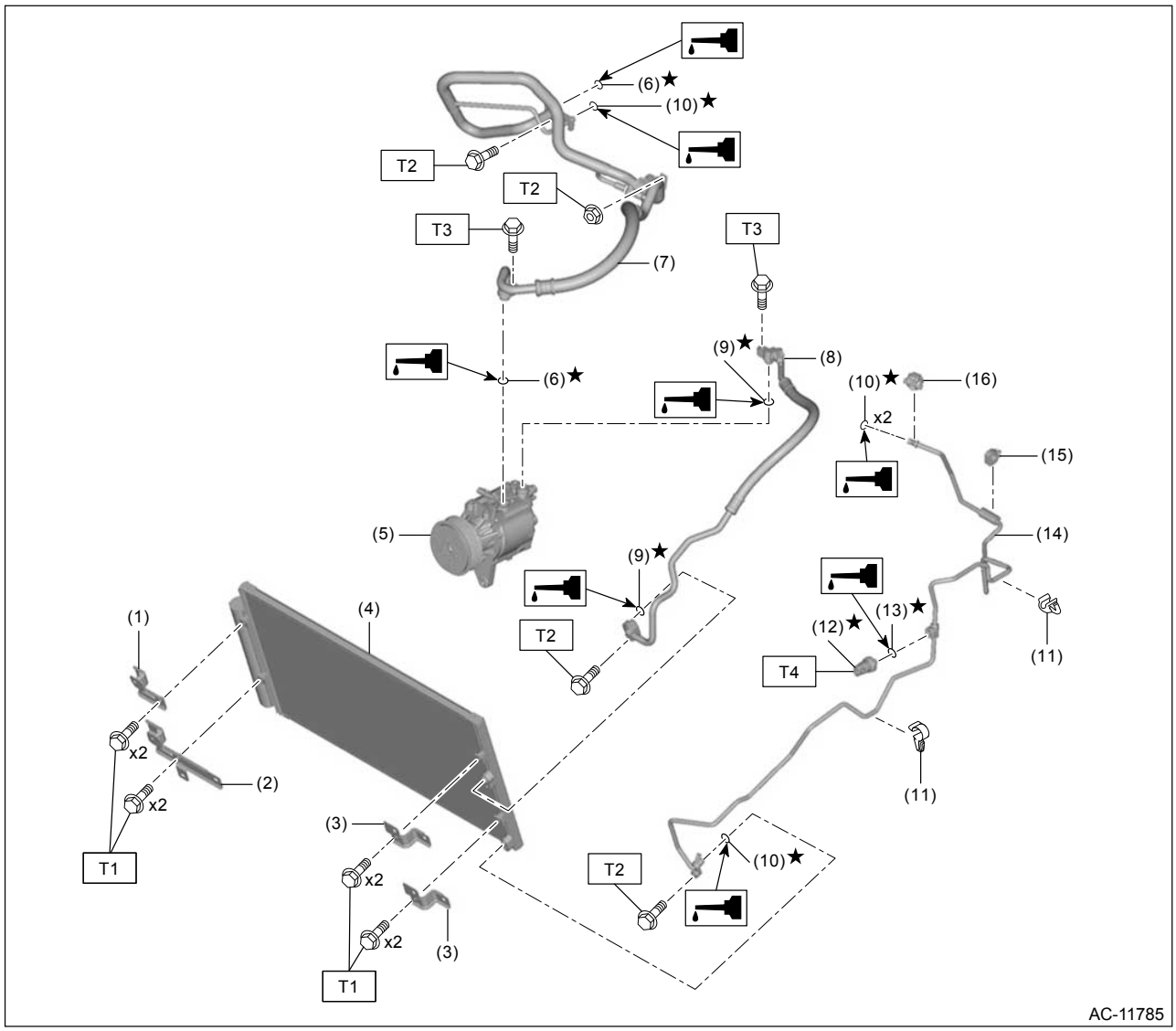



(1) Cover heater pipe
(2) Clamp heater pipe
(3) Heater core
(4) Motor actuator air mix LH
(5) Aspirator
(6) Aspirator hose
(7) Case ASSY heater unit
(8) Lever vent
(9) Lever defroster
(10) Lever vent
(11) Lever defroster
(12) Tapping screw
(13) Motor actuator mode
(14) Motor actuator air mix RH

***Tightening torque: N·m (kgf-m, ft-lb)***

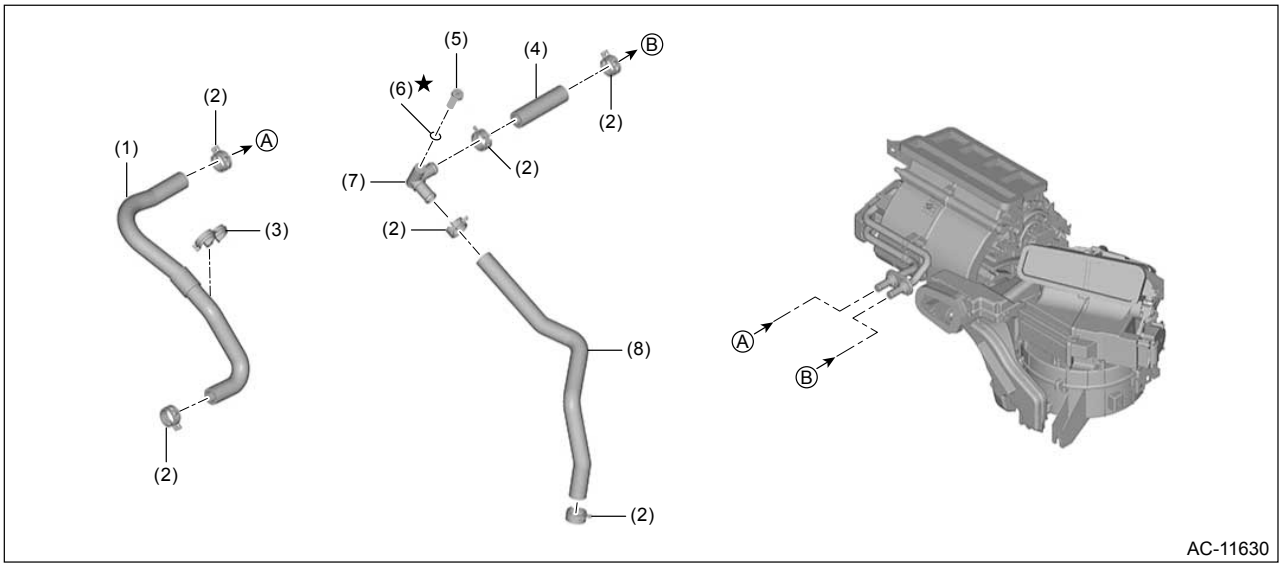
***T: 7.5 (0.8, 5.5)***

## 2. AIR CONDITIONING UNIT



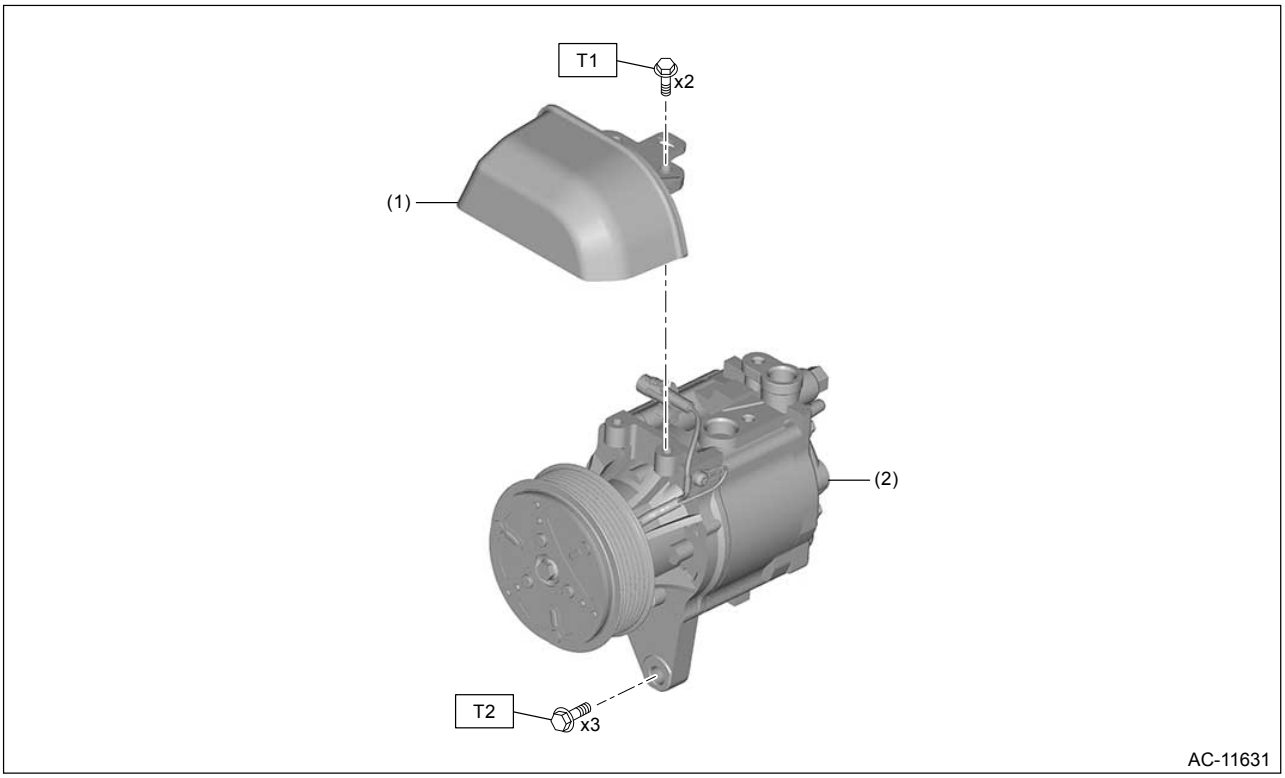

| | | | | |
|---|---|---|---|---|
| (1) | Bracket RH UPR | (9) | O-ring | ***Tightening torque: N·m (kgf-m, ft-lb)*** |
| (2) | Bracket RH LWR | (10) | O-ring | ***T1: 6 (0.6, 4.4)*** |
| (3) | Bracket LH | (11) | Clip pipe | ***T2: 7.5 (0.8, 5.5)*** |
| (4) | Condenser ASSY | (12) | Pressure switch | ***T3: 10 (1.0, 7.4)*** |
| (5) | Compressor ASSY | (13) | O-ring | ***T4: 10.8 (1.1, 8)*** |
| (6) | O-ring | (14) | Pipe evaporator cooling | |
| (7) | Hose pressure suction | (15) | Clamp pipe | |
| (8) | Hose pressure discharge | (16) | Quick connector | |

## 3. HEATER HOSE




(1) Hose heater inlet
(2) Heater hose clip
(3) Clip
(4) Hose heater outlet
(5) Drain plug
(6) O-ring
(7) Hose heater drain
(8) Hose heater outlet

## 4. COMPRESSOR



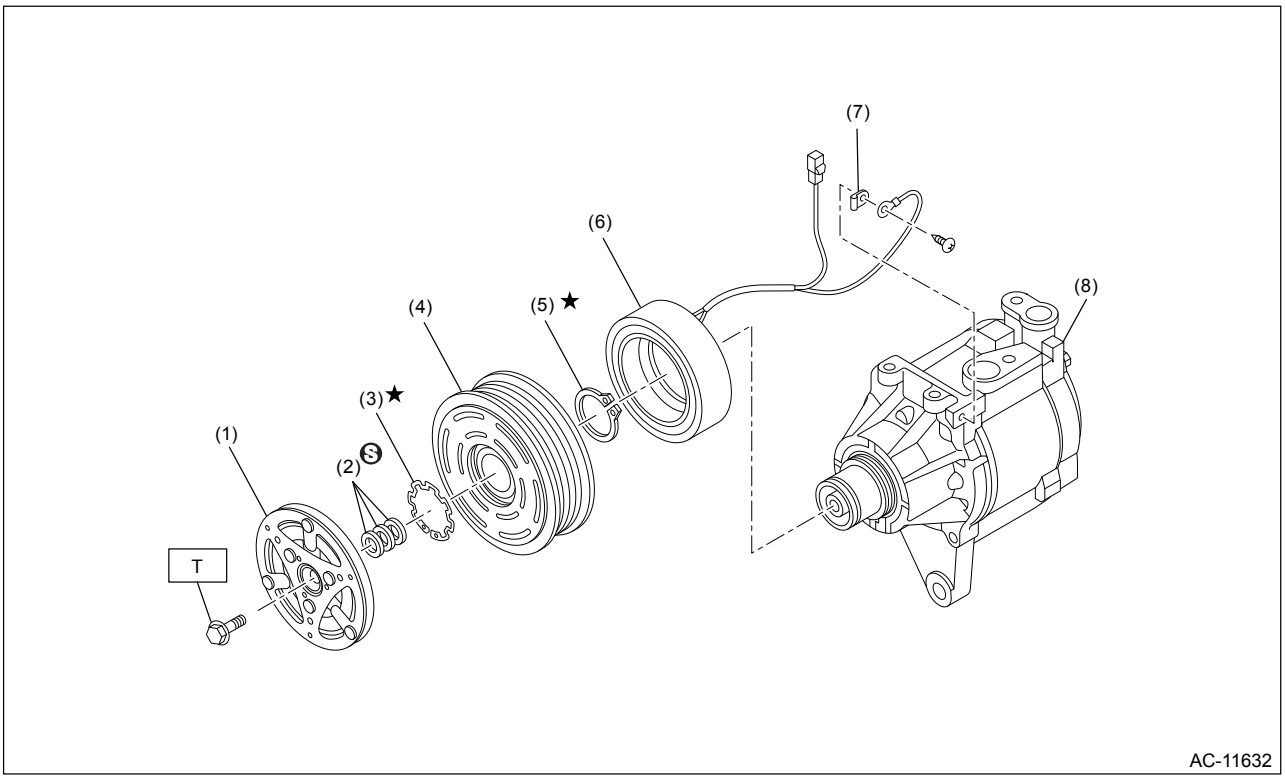

(1) V-belt cover LH
(2) Compressor ASSY

***Tightening torque: N·m (kgf-m, ft-lb)***

***T1: 6.4 (0.7, 4.7)***

***T2: Ref. to AIR CONDITIONER>Compressor>INSTALLATION.***

## 5. MAGNET CLUTCH




| | | |
|---|---|---|
| (1) Magnet clutch hub | (5) Snap ring | ***Tightening torque: N·m (kgf-m, ft-lb)*** |
| (2) Magnet clutch washer | (6) Magnet clutch stator | ***T: 13.2 (1.3, 9.7)*** |
| (3) Snap ring | (7) Clamp | |
| (4) Magnet clutch pulley | (8) Compressor ASSY | |

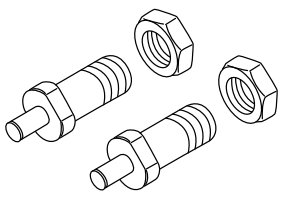
## 6. HEATER VENT DUCT AND GRILLE

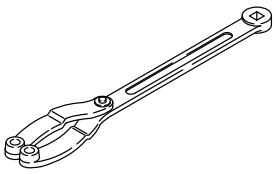
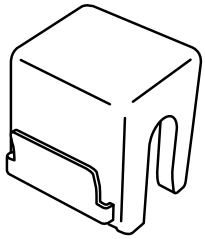
For components of the air vent duct and air vent grille that are secured on the instrument panel, refer to "Instrument Panel" of "EXTERIOR/INTERIOR TRIM" section. Ref. to EXTERIOR/INTERIOR TRIM>General Description>COMPONENT > INSTRUMENT PANEL.

### AIR CONDITIONER > General Description

### PREPARATION TOOL

## 1. SUBARU SPECIAL TOOL

| ILLUSTRATION | TOOL NUMBER | DESCRIPTION | REMARKS |
|---|---|---|---|
|  ST18334AA020 | 18334AA020 | PULLEY WRENCH PIN SET | • Used for removing and installing the magnet clutch assembly.<br>• Used together with PULLEY WRENCH (18355AA000). |
| | 18355AA000 | PULLEY WRENCH | • Used for removing and installing the magnet clutch assembly. |

| | | | |
|---|---|---|---|
|  ST18355AA000 | | | • Used with PULLEY WRENCH PIN SET (18334AA020). |
|  ST73499XA00/ | 73499XA00A | SP TL REMOVER PD | Used for removing the quick connector. |
|  STSSM4 | — | SUBARU SELECT MONITOR 4 | Used for setting of each function and troubleshooting for electrical system.<br>**Note:**<br>• **For detailed operation procedures, refer to "Help" of application.**<br>• **Used together with interface for Subaru Select Monitor (such as DST-i and DST-010).** |

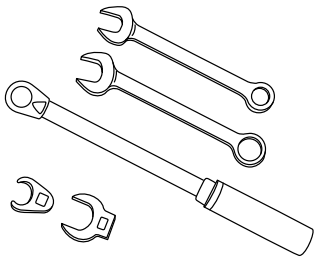
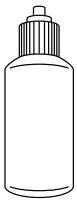
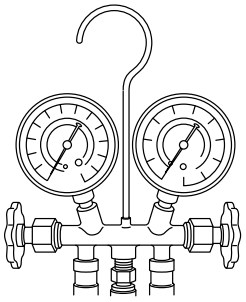
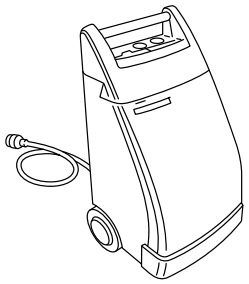
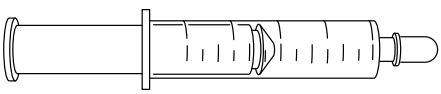
## 2. OTHER

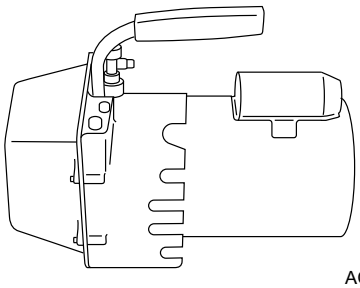
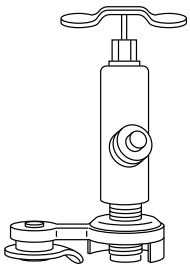
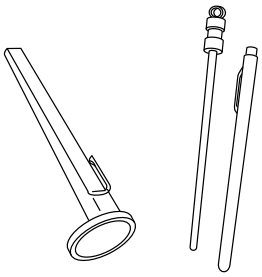
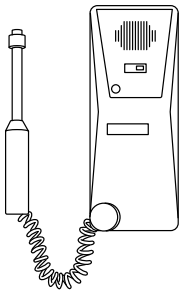
**Caution:**

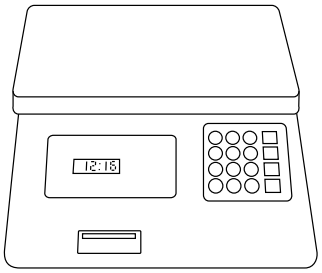
- **Use only tools and parts dedicated to the HFO-1234yf system. If other types of refrigerant or compressor oil are mixed, it will result in poor lubrication and the compressor may be damaged.**
- **In order to prevent the mixture of other parts, grease or oil, the types of tools and screws and the replacement valves used are different. Use tools and parts appropriate for the system.**

| | HFO-1234yf | HFC-134a | CFC-12 |
|---|---|---|---|
| Tool and screw type | Millimeter size | Millimeter size | Inch size |
| Valve type | Quick joint type | Quick joint type | Screw-in type |

| | REMARKS |
|---|---|
| Circuit tester | Used for measuring resistance, voltage and current. |
| Hexagon wrench | Used for removing and installing the expansion valve, etc. |
| Dial gauge | Used for measuring the gap of magnet clutch. |
| Magnet stand | Used for measuring the gap of magnet clutch. |
| Wrench | Various **wrenches** will be required to service any A/C system. 7 — 40 N·m (0.7 — 4.1 kgf-m, 5 — 30 ft-lb) torque wrench and various crowfoot wrenches will be needed. Open end or flare nut wrenches will be needed |

| | |
|---|---|
|  AC-00213 | to affix the pipe and hose fittings. |
| Applicator bottle  AC-00012 | A small **applicator bottle** is recommended to apply compressor oil to the various parts. It can be available at a hardware store. |
| Manifold gauge set  AC-00013 | A **manifold gauge set** (with hoses) is available at either a refrigerant supplier or an automotive equipment supplier. |
| Refrigerant recovery system  AC-00014 | A **refrigerant recovery system** is used for the recovery and recycling of A/C system refrigerant after contaminants and moisture have been removed from the refrigerant. |
| Syringe  AC-00015 | A graduated plastic **syringe** will be needed to add oil into the system again. A syringe can be available at a pharmacy or drug store. |

| | |
|---|---|
| Vacuum pump<br>  <br>AC-00016 | A **vacuum pump** is necessary (for a good working condition), and may be available at either a refrigerant supplier or an automotive equipment supplier. |
| Can tap<br>  <br>AC-00017 | A **can tap** for refrigerant cans is available at an automotive equipment supplier. |
| Thermometer/hygrometer<br>  <br>AC-00018 | A pocket **thermometer/hygrometer** is available at either an industrial hardware store or a refrigerant supplier. |
| Electronic leak detector<br>  <br>AC-00019 | An **electronic leak detector** is available at either a specialty tool supplier or an A/C equipment supplier. |
| Weight scale | A **weight scale** such as an electronic charging scale or a bathroom scale with digital display will be needed, if a 13.6 kg (30 lb) refrigerant container is used. |




AC-00020

AIR CONDITIONER > Air Conditioning System

## WIRING DIAGRAM

For the wiring diagram, refer to "Air Conditioning System" in the wiring diagram. Ref. to WIRING SYSTEM>Air Conditioning System>WIRING DIAGRAM.

AIR CONDITIONER > Air Conditioning System

## INSPECTION

### 1. BASIC INSPECTION

For basic inspection, refer to "Basic Diagnostic Procedure" of "AIR CONDITIONER (DIAGNOSTICS)" section. Ref. to AIR CONDITIONER(DIAGNOSTICS)>Basic Diagnostic Procedure.

### 2. SYSTEM BLOCK DIAGRAM

For system block diagram, refer to "System Block Diagram" in "AIR CONDITIONER (DIAGNOSTICS)" section. Ref. to AIR CONDITIONER(DIAGNOSTICS)>General Description>SYSTEM BLOCK DIAGRAM.

### 3. MODULE I/O SIGNAL

For the specification (electrical component), refer to "Control Module I/O Signal" of "AIR CONDITIONER (DIAGNOSTICS)" section. Ref. to AIR CONDITIONER(DIAGNOSTICS)>Auto A/C Control Module I/O Signal>ELECTRICAL SPECIFICATION.

AIR CONDITIONER > Air Conditioning System

## NOTE

For procedure of each component in the air conditioning system, refer to the sections below.

- Blower motor: Ref. to AIR CONDITIONER>Blower Motor.
- Power transistor: Ref. to AIR CONDITIONER>Power Transistor.
- Heater core: Ref. to AIR CONDITIONER>Heater Core.
- Compressor: Ref. to AIR CONDITIONER>Compressor.
- Control panel: Ref. to AIR CONDITIONER>Control Panel.
- Condenser: Ref. to AIR CONDITIONER>Condenser.
- Heater and cooling unit: Ref. to AIR CONDITIONER>Heater and Cooling Unit.
- Evaporator: Ref. to AIR CONDITIONER>Evaporator.
- Expansion valve: Ref. to AIR CONDITIONER>Expansion Valve.
- Hose & pipe: Ref. to AIR CONDITIONER>Hose and Pipe.
- Pressure switch: Ref. to AIR CONDITIONER>Pressure Switch (Triple Pressure Switch).
- Ambient sensor: Ref. to AIR CONDITIONER>Ambient Sensor.
- Sunload sensor: Ref. to AIR CONDITIONER>Sunload Sensor (Auto A/C Model).
- In-vehicle sensor: Ref. to AIR CONDITIONER>In-Vehicle Sensor (Auto A/C Model).
- Evaporator sensor: Ref. to AIR CONDITIONER>Evaporator Sensor.
- Intake door actuator: Ref. to AIR CONDITIONER>FRESH/RECIRC Door Actuator.
- Mode door actuator: Ref. to AIR CONDITIONER>Mode Door Actuator.
- Air mix door actuator: Ref. to AIR CONDITIONER>Air Mix Door Actuator.

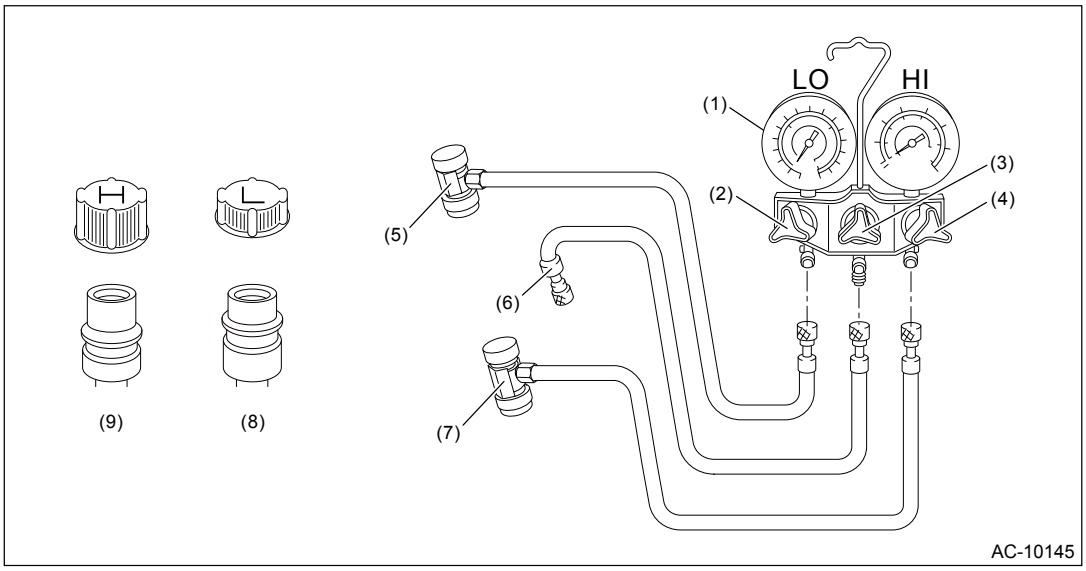
## PROCEDURE

### 1. CHECK REFRIGERANT GAS PRESSURE

1. Prepare the vehicle.
   - Place the vehicle in the shade and windless condition, and open the front hood.
   - Open the front door glasses and close all doors.
   - Check that the ambient temperature is 25 — 40 °C (77 — 104 °F) and that the humidity is 30 — 80 %.
2. Check the refrigerant pressure.

(1) Attach the manifold gauge set.

**Caution:**
- **During operation, be sure to wear protective goggles and protective gloves.**
- **Follow the detailed operation procedure described in the attached operation manual.**




(1) Manifold gauge
(2) Low pressure valve
(3) Center valve
(4) High pressure valve
(5) Low-pressure hose
(6) Center manifold hose (vacuum pump and charge)
(7) High-pressure hose
(8) Low-pressure side service port
(9) High-pressure side service port

1. Check that all valves are fully closed.
2. Install the low/high pressure hoses to the service ports on the low/high pressure sides of the vehicle respectively.

**Caution:**
- **Confirm that the connections are secure.**

(2) Start the engine.

(3) Set the vehicle to the following conditions.

| Item | Condition |
|---|---|
| Engine | Warming-up |
| Air vent grille | Full open |
| A/C switch | ON |
| Temperature setting | LO (MAX COOL) |
| FRESH/RECIRC position | RECIRC |
| Air flow control position | VENT |

| | |
|---|---|
| Fan speed | 5/7 level |

(4) Idle the engine for 30 minutes under the conditions in step (3).

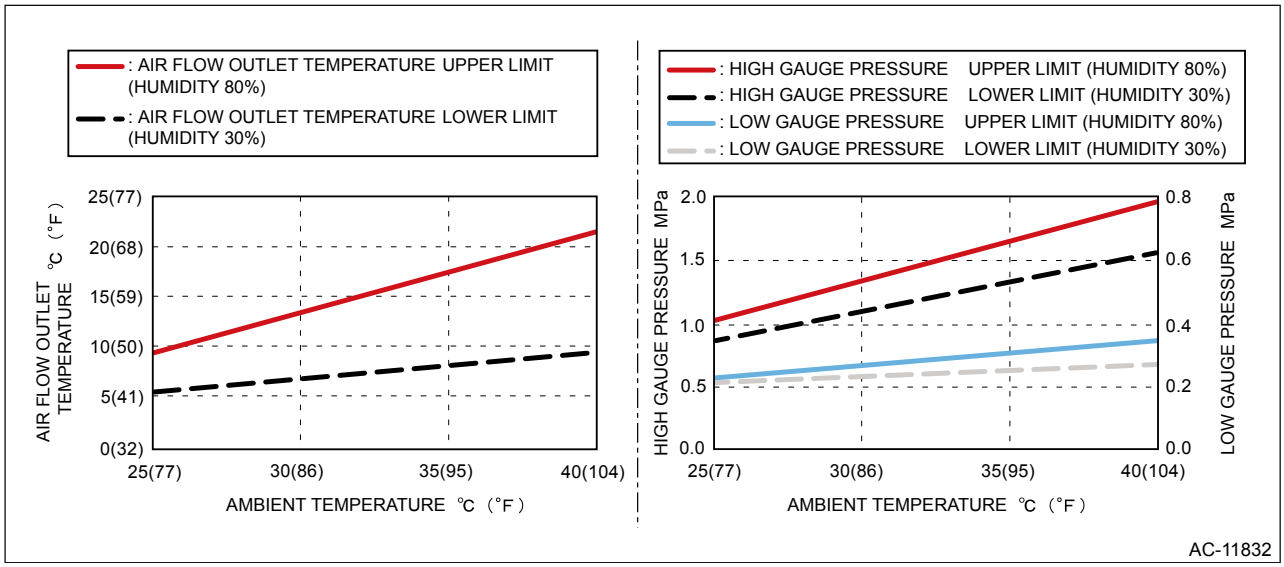
(5) Read the gauge values on both high pressure side and low pressure side of the manifold gauge.

**3.** Using a thermometer and a hygrometer, measure the air vent grille outlet opening temperature, ambient temperature and humidity.

**Note:**

**For outlet opening temperature, measure the average temperature of center grille assembly and side grille assembly.**

**4.** Check that the high and low pressures and outlet opening temperature for ambient temperature and humidity is within the standard value described in the chart below.




**5.** Refer to "DIAGNOSIS WITH SYMPTOM" if the inspection result is not within the standard value. Ref. to AIR CONDITIONER>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > INSPECTION WITH PRESSURE SYMPTOM.

## AIR CONDITIONER > Refrigerant Pressure with Manifold Gauge Set

## INSPECTION

### 1. INSPECTION WITH PRESSURE SYMPTOM

| Symptoms | Reference |
|---|---|
| Pressures on both high and low pressure sides are low | Ref. to AIR CONDITIONER>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > BOTH HIGH AND LOW PRESSURE SIDES ARE LOW. |
| Pressures on both high and low pressure sides are high | Ref. to AIR CONDITIONER>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > BOTH HIGH AND LOW PRESSURE SIDES ARE HIGH. |
| Pressures on high and low pressure sides are equal, or high-pressure side is low | Ref. to AIR CONDITIONER>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > HIGH AND LOW PRESSURE SIDES ARE EQUAL, OR HIGH-PRESSURE SIDE IS LOW. |
| | Ref. to AIR CONDITIONER>Refrigerant |

| | |
|---|---|
| High-pressure side is high | Pressure with Manifold Gauge Set>INSPECTION > HIGH-PRESSURE SIDE IS HIGH. |
| Low-pressure side is low | Ref. to AIR CONDITIONER>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > LOW-PRESSURE SIDE IS LOW. |
| Low-pressure side is high | Ref. to AIR CONDITIONER>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > LOW-PRESSURE SIDE IS HIGH. |

## 2. BOTH HIGH AND LOW PRESSURE SIDES ARE LOW

### 1. CHECK REFRIGERANT LEAKS.

Check the refrigerant for leaks. Ref. to AIR CONDITIONER>Refrigerant Leak Check>INSPECTION.

**Note:**
**When high-pressure side is less than 0.69 MPa: Go to step 2.**

Are there refrigerant leaks?

Yes — Repair the refrigerant leaking points.

No — Go to 2.

### 2. FILL PROPER AMOUNT OF REFRIGERANT.

Drain all refrigerant, and refill proper amount of refrigerant.

- Recovery: Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
- Fill: Ref. to AIR CONDITIONER>Refrigerant Charging Procedure>PROCEDURE.

Is refrigerant pressure within the standard value?

Yes — Refrigerant pressure is normal.

No — Perform corresponding “INSPECTION WITH PRESSURE SYMPTOM”.

## 3. BOTH HIGH AND LOW PRESSURE SIDES ARE HIGH

### 1. FILL PROPER AMOUNT OF REFRIGERANT.

Drain all refrigerant, and refill proper amount of refrigerant.

- Recovery: Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
- Fill: Ref. to AIR CONDITIONER>Refrigerant Charging Procedure>PROCEDURE.

Is refrigerant pressure within the standard value?

| | |
|---|---|
| Yes | Refrigerant pressure is normal. |
| No | Perform corresponding "INSPECTION WITH PRESSURE SYMPTOM". |

## 4. HIGH AND LOW PRESSURE SIDES ARE EQUAL, OR HIGH-PRESSURE SIDE IS LOW

### 1. CHECK REFRIGERANT LEAKS.

Check the refrigerant for leaks. Ref. to AIR CONDITIONER>Refrigerant Leak Check>INSPECTION.

**Note:**
**When high-pressure side is less than 0.69 MPa: Go to step 2.**

Are there refrigerant leaks?

| | |
|---|---|
| Yes | Repair the refrigerant leaking points. |
| No | Go to 2. |

### 2. FILL PROPER AMOUNT OF REFRIGERANT.

Drain all refrigerant, and refill proper amount of refrigerant.

- Recovery: Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
- Fill: Ref. to AIR CONDITIONER>Refrigerant Charging Procedure>PROCEDURE.

Is refrigerant pressure within the standard value?

| | |
|---|---|
| Yes | Refrigerant pressure is normal. |
| No | Inspect the compressor. Ref. to AIR CONDITIONER(DIAGNOSTICS)>Diagnostics with Phenomenon>INSPECTION > COLD AIR DOES NOT COME OUT EVEN WHEN THE A/C BUTTON IS PRESSED; THE GLASS CANNOT BE DEFOGGED. (COMPRESSOR DOES NOT OPERATE.). |

## 5. HIGH-PRESSURE SIDE IS HIGH

### 1. CHECK CONDENSER.

Check the condenser. Ref. to AIR CONDITIONER>Condenser>INSPECTION.

Is condenser OK?

| | |
|---|---|
| Yes | Go to 2. |
| No | Clean or replace the condenser. |

### 2. CHECK RADIATOR FAN.

Check the radiator fan system. Ref. to COOLING(H4DO)>Radiator Fan System>INSPECTION.

Is radiator fan system normal?

| | |
|---|---|
| Yes | Go to 3. |
| No | Repair the radiator fan system or replace the faulty parts. |

### 3. FILL PROPER AMOUNT OF REFRIGERANT.

Drain all refrigerant, and refill proper amount of refrigerant.

- Recovery: Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
- Fill: Ref. to AIR CONDITIONER>Refrigerant Charging Procedure>PROCEDURE.

Is refrigerant pressure within the standard value?

| | |
|---|---|
| Yes | Refrigerant pressure is normal. |
| No | Check the high-pressure hose and condenser for kinks or clogging, and replace if defective. |

## 6. LOW-PRESSURE SIDE IS LOW

### 1. CHECK REFRIGERANT LEAKS.

Check the refrigerant for leaks. Ref. to AIR CONDITIONER>Refrigerant Leak Check>INSPECTION.

**Note:**
**When high-pressure side is less than 0.69 MPa: Go to step 2.**

Are there refrigerant leaks?

Yes — Repair the refrigerant leaking points.

No — Go to 2.

### 2. FILL PROPER AMOUNT OF REFRIGERANT.

Drain all refrigerant, and refill proper amount of refrigerant.

- Recovery: Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
- Fill: Ref. to AIR CONDITIONER>Refrigerant Charging Procedure>PROCEDURE.

Is refrigerant pressure within the standard value?

Yes — Refrigerant pressure is normal.

No — Go to 3.

### 3. REPLACE EXPANSION VALVE.

Replace the expansion valve. Ref. to AIR CONDITIONER>Expansion Valve>REMOVAL.

Is refrigerant pressure within the standard value?

Yes — Refrigerant pressure is normal.

No — Inspect the compressor. Ref. to AIR CONDITIONER(DIAGNOSTICS)>Diagnostics with Phenomenon>INSPECTION > COLD AIR DOES NOT COME OUT EVEN WHEN THE A/C BUTTON IS PRESSED; THE GLASS CANNOT BE DEFOGGED. (COMPRESSOR DOES NOT OPERATE.).

## 7. LOW-PRESSURE SIDE IS HIGH

## 1. FILL PROPER AMOUNT OF REFRIGERANT.

Drain all refrigerant, and refill proper amount of refrigerant.

- Recovery: Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
- Fill: Ref. to AIR CONDITIONER>Refrigerant Charging Procedure>PROCEDURE.

Is refrigerant pressure within the standard value?

| | |
|---|---|
| Yes | Refrigerant pressure is normal. |
| No | Go to 2. |

## 2. REPLACE EXPANSION VALVE.

Replace the expansion valve. Ref. to AIR CONDITIONER>Expansion Valve>REMOVAL.

Is refrigerant pressure within the standard value?

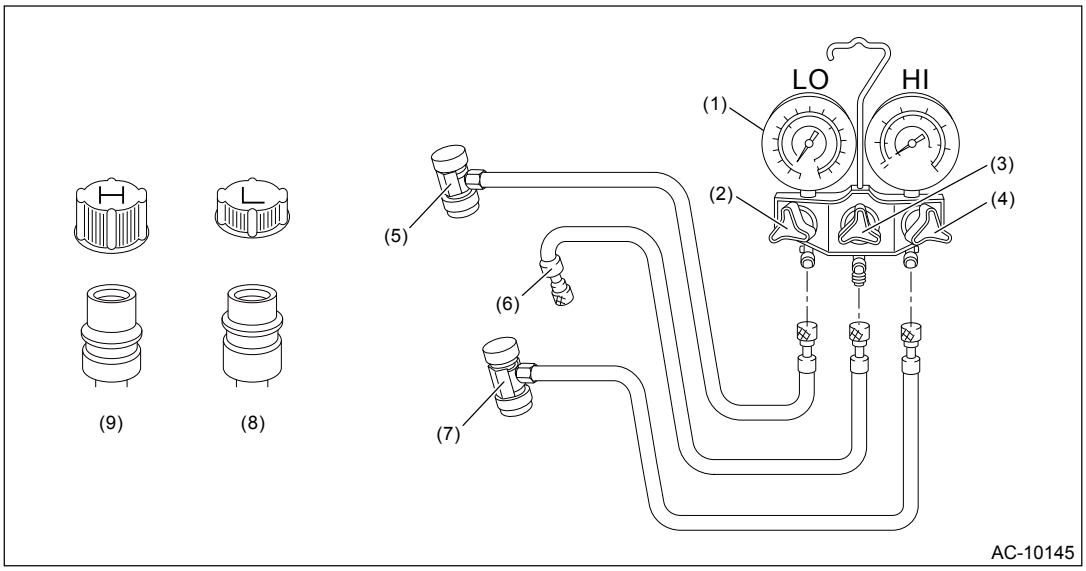
| | |
|---|---|
| Yes | Refrigerant pressure is normal. |
| No | Replace the evaporator. Ref. to AIR CONDITIONER>Evaporator>REMOVAL. |

## PROCEDURE

1. Perform compressor oil return operation. Ref. to AIR CONDITIONER>Compressor Oil>OPERATION.
2. Turn the ignition switch to OFF.
3. Attach the manifold gauge set.

**Caution:**

- **During operation, be sure to wear protective goggles and protective gloves.**
- **Connect the refrigerant recovery system with the manifold gauge set to discharge the refrigerant from the A/C system and recycle the gas.**
- **When recycling the discharged refrigerant, keep service cans on hand. Because the recovery rate with the recovery system is approx. 90%, service cans are necessary to charge the refrigerant.**
- **Follow the detailed operation procedure described in the attached operation manual.**




(1) Manifold gauge
(2) Low pressure valve
(3) Center valve
(4) High pressure valve
(5) Low-pressure hose
(6) Center manifold hose (vacuum pump and charge)
(7) High-pressure hose
(8) Low-pressure side service port
(9) High-pressure side service port

(1) Check that all valves are fully closed.
(2) Install the low/high pressure hoses to the service ports on the low/high pressure sides of the vehicle respectively.

**Caution:**
**Confirm that the connections are secure.**

(3) Connect the center manifold hose to the refrigerant recovery system.

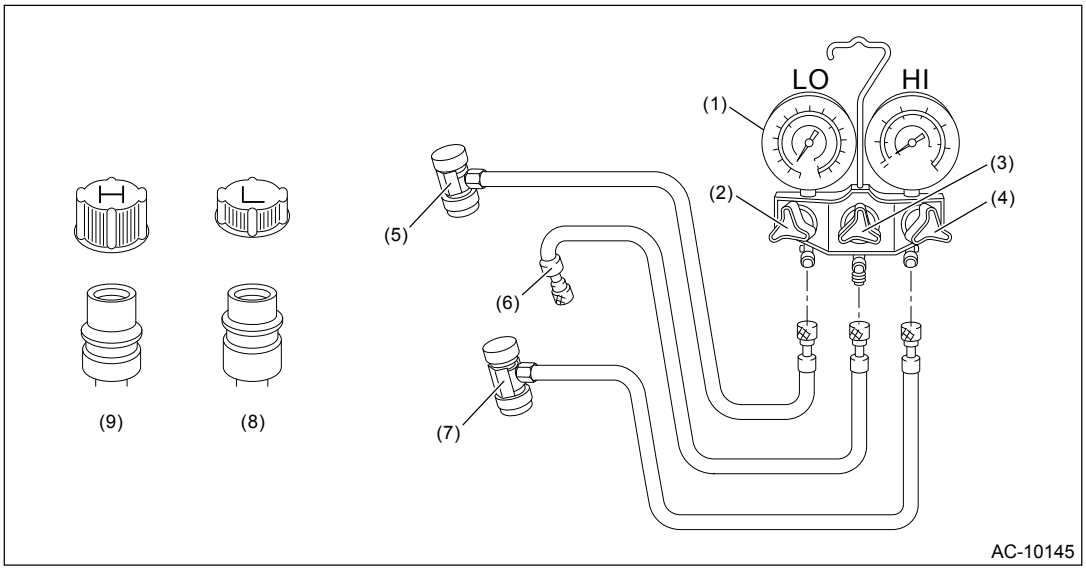
4. Follow the operation manual attached to the refrigerant recovery system to collect the refrigerant.

## PROCEDURE

**1.** Attach the manifold gauge set.

**Caution:**

- **During operation, be sure to wear protective goggles and protective gloves.**
- **Air in the cycle can cause insufficient air conditioning, and water in the cycle can cause clogging in the cycle (icing) and rust. To remove this air and water content, use a vacuum pump to perform evacuation before filling with refrigerant. By making the inside of the cycle a vacuum, the water content will evaporate even at normal temperatures, and can be removed.**
- **Follow the detailed operation procedure described in the attached operation manual.**




(1) Manifold gauge
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(1) Check that all valves are fully closed.
(2) Install the low/high pressure hoses to the service ports on the low/high pressure sides of the vehicle respectively.

**Caution:**
**Confirm that the connections are secure.**

(3) Connect the center manifold hose of the manifold gauge to the vacuum pump.

**2.** Perform evacuation.

**Caution:**
**Make sure to perform evacuation using a vacuum pump.**

(1) Open the low-pressure side valve, high-pressure side valve and center valve.
(2) Operate the vacuum pump.
(3) Perform evacuation for 5 minutes or more, and when the low pressure gauge needle reaches −0.1 MPa (−1 kgf/cm$^2$, −14 psi), close the center manifold hose valve, and stop the vacuum pump.
(4) Leave alone for 5 to 10 minutes after closing the low pressure valve and high pressure valve, and check whether there is any change in the low pressure gauge needle indication.
If the needle position changes, this indicates a leak. Check the pipe and hose connections, and repair the location with the problem.
After repair, retry charging the refrigerant from the step (1).
(5) If there is no leakage, continue evacuation for additional 20 — 30 minutes, close all valves and then stop the

vacuum pump.

**3.** Charge refrigerant.

**Preparation items:**

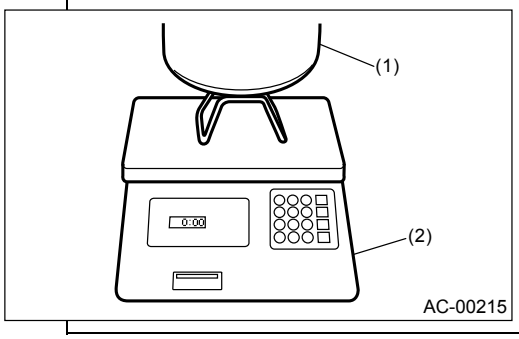
Refrigerant: Ref. to AIR CONDITIONER>General Description>SPECIFICATION > REFRIGERANT.

(1) Follow the can tap operation manual to attach it to the refrigerant can.

(2) Disconnect the center manifold hose from the vacuum pump, and connect the hose to the tap valve.

**Note:**

**When 13.6 kg (30 lb) refrigerant container (1) is used, measure the amount of refrigerant with a refrigerant charging scale (2), and connect with the center manifold hose.**




(3) Open the tap valve of the supply container (refrigerant can or refrigerant container).

(4) Loosen the center manifold hose connection on the manifold gauge for a few seconds (if there is a purge valve on the manifold gauge, push this instead) to allow the air in the center manifold hose to be bled by the refrigerant pressure.

(5) Open the low pressure valve and high pressure valve of the manifold gauge to fill with refrigerant.

**Note:**

**If the supply container is empty, close all manifold gauge valves and the tap valve of the supply container, and replace the empty supply container with a new one. After replacing with a new supply container, perform air purge, and resume the filling operation.**

(6) If the low pressure gauge indicates approximately 0.2 MPa (2 kgf/cm$^2$, 29 psi) or refrigerant filling efficiency drops, close the low pressure and high pressure valves.

(7) Check that the low pressure valve and high pressure valve are closed, turn off the A/C switch and start the engine.

**Caution:**

- **When filling operation is performed with the engine running, do not open the high pressure valve. Always fill from the low pressure valve.**
- **Do not start the engine before charging refrigerant.**

(8) To prevent damage to the compressor, push the A/C switch ON-OFF quickly a few times.

(9) Set the vehicle to the following conditions.

| Item | Condition |
|---|---|
| Engine speed | 1,500 r/min |
| A/C switch | ON |
| Temperature setting | LO (MAX COOL) |
| Fan speed | HI (MAX) |
| FRESH/RECIRC position | RECIRC |
| Air flow control position | VENT |
| Window | OPEN |

(10)Open the low pressure valve, check the refrigerant pressure with a manifold gauge and fill with refrigerant up to the specified amount. Ref. to AIR CONDITIONER>Refrigerant Pressure with Manifold Gauge Set>INSPECTION > INSPECTION WITH PRESSURE SYMPTOM.

**4.** Using an electronic leak detector (leak tester), check for refrigerant leaks in the system. Ref. to AIR

CONDITIONER>Refrigerant Leak Check>INSPECTION.

5. After filling with refrigerant, close all valves and remove the manifold gauge set.
6. Attach cap to the service port of the low pressure side and high pressure side.

## INSPECTION

1. Check the refrigerant gas pressure. Ref. to AIR CONDITIONER>Refrigerant Pressure with Manifold Gauge Set>PROCEDURE > CHECK REFRIGERANT GAS PRESSURE.
2. Stop the engine.
3. Using an electronic leak detector (leak tester), start the leak test.

| Items | Condition | Corrective action |
|---|---|---|
| Pipe | Check the connection of the pipe and hose (low pressure). | Check the O-ring at connection. If necessary, replace each part. |
| | Check the connection for pressure switch and pipe. | Replace the pressure switch. |
| | Check the connection between pipe and condenser. | Check the O-ring at connection and tightening torque. If necessary, replace each part. |
| Condenser | Check the welded part of condenser and core. | Replace the condenser. |
| Hose (high-pressure) | Check the connection between hose (high-pressure) and compressor. | Check the O-ring at connection and tightening torque. If necessary, replace each part. |
| | Check the connection between hose (high-pressure) and condenser. | Check the O-ring at connection and tightening torque. If necessary, replace each part. |
| | Check the rubber part of the flexible hose and pipe seam.<br>**Caution:**<br>**Carefully check the external surface of flexible hoses and pipes at approx. 25 mm (0.98 in) per second.** | Replace the hose (high pressure). |
| | Check the valve and cap in the service port. | Check the rubber seal of the valve and cap. If necessary, replace valve or cap. |
| Compressor | Check the compressor pulley and vicinity of shaft seal.<br>**Caution:**<br>**Some shaft seals will show a slight amount of leakage, about 3 g (0.1 oz) per year. This is not a problem.** | Replace the compressor. |
| Hose (low-pressure) | Check the connection between hose (low pressure) and expansion valve. | Check the O-ring at connection and tightening torque. If necessary, replace each part. |
| | Check the connection between hose (low pressure) and compressor. | Check the O-ring at connection and tightening torque. If necessary, replace each part. |
| | Check the rubber part of the flexible hose and pipe | |

| | | |
|---|---|---|
| | seam.<br>**Caution:**<br>**Carefully check the external surface of flexible hoses and pipes at approx. 25 mm (0.98 in) per second.** | Replace the hose (low pressure). |
| | Check the valve and cap in the service port. | Check the rubber seal of the valve and cap. If necessary, replace valve or cap. |
| Evaporator | Remove the drain hose from the heater case, and check the end part for 10 seconds or more. | Replace the evaporator. |
| | Check the air vent grille.<br>**Note:**<br>**Turn the ignition switch to ON, and run the blower at high speed for approx. 1 minute. Stop the blower to check the air vent grille on the instrument panel. While moving the tester closer to the grille, run the blower for 1 or 2 seconds, then stop it. Check the grille at that position for at least 10 seconds.** | Replace the evaporator. |

AIR CONDITIONER > Relay and Fuse

## LOCATION

For the location, refer to “FUSE AND RELAY” in the wiring diagram. Ref. to WIRING SYSTEM>Fuse And Relay>LOCATION.

**Note:**
**For details of relay and fuse, refer to “DC POWER SUPPLY CIRCUIT”. Ref. to WIRING SYSTEM>Power Supply Circuit>WIRING DIAGRAM.**

AIR CONDITIONER > Relay and Fuse

## INSPECTION

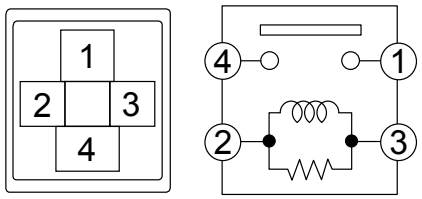
### 1. CHECK FUSE

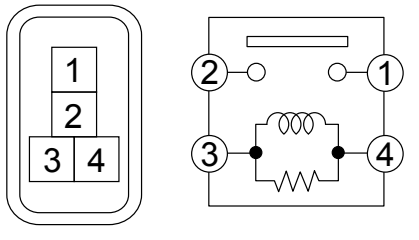
1. Remove the fuse and inspect visually.
2. If the fuse is blown out, replace the fuse.

**Note:**
**If the fuse is blown again, check the system wiring harness.**

### 2. CHECK RELAY

1. Measure the resistance between relay terminals.

| Terminal No. | Inspection conditions | Standard | Circuit |
|---|---|---|---|
| 1 — 4 | Always | 1 MΩ or more |  AC-02796 |
| | Apply battery voltage between terminals 2 and 3. | Less than 1 Ω | |

| Terminal No. | Inspection conditions | Standard | Circuit |
|---|---|---|---|
| 1 — 2 | Always | 1 MΩ or more |  LI-01273 |
| | Apply battery voltage between terminals 4 and 3. | Less than 1 Ω | |

2. Replace the relay if the inspection result is not within the standard value.

AIR CONDITIONER > Compressor Oil

## OPERATION

**Note:**
**Before making repairs, perform the oil return operation to return the compressor oil in circulation with the refrigerant to the compressor.**

1. Start the engine.
2. Set the vehicle to the following conditions.

| Item | Condition |
|---|---|
| Engine speed | 1,500 r/min |
| A/C switch | ON |
| Temperature setting | LO (MAX COOL) |
| FRESH/RECIRC position | RECIRC |
| Fan speed | HI (MAX) |

3. Leave in this condition for 10 minutes.

AIR CONDITIONER > Compressor Oil

## ADJUSTMENT

**Note:**
**Since the hygroscopicity of compressor oil is high, perform this series of works quickly.**

**Preparation items:**

Compressor oil: Ref. to AIR CONDITIONER>General Description>SPECIFICATION > A/C SYSTEM.

**Compressor oil capacity:**

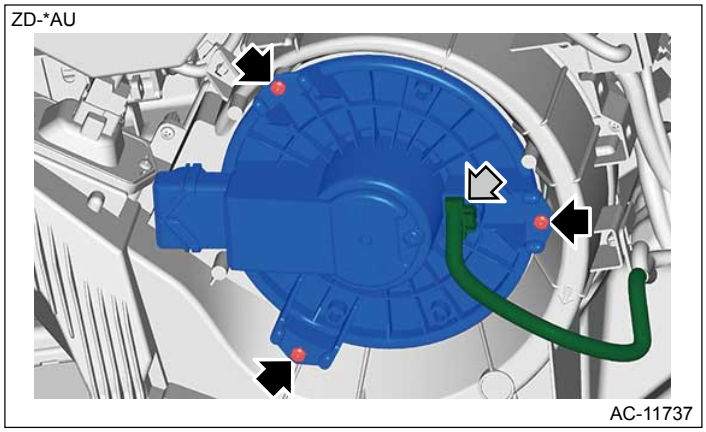
Refer to "SPECIFICATION" for compressor oil capacity. Ref. to AIR CONDITIONER>General Description>SPECIFICATION > A/C SYSTEM.

- If a component has been replaced, add an appropriate amount of compressor oil (same as the amount of remaining oil in removed component).
- When replacing the compressor, the new compressor will already have the specified amount of oil in it. Adjust the oil amount (so that the amount remains the same as that of the removed compressor) and install the new compressor.

## AIR CONDITIONER > Blower Motor

## REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the blower motor assembly.
   (1) Disconnect the connector.
   (2) Remove the screws and detach the blower motor assembly.




## AIR CONDITIONER > Blower Motor

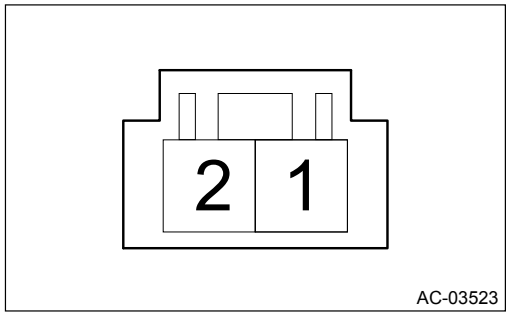
## INSTALLATION

1. Install the blower motor assembly and connect the connector.
2. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

## AIR CONDITIONER > Blower Motor

## INSPECTION

1. Check the motor operation when battery voltage is applied between the connector terminals.



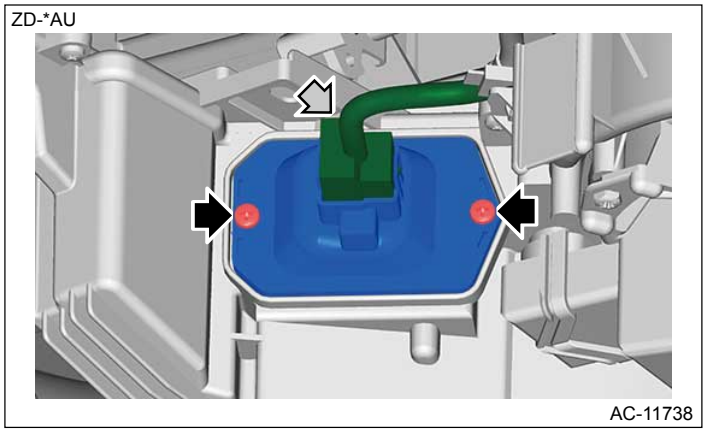

| Terminal No. | Inspection conditions | Specification |
|---|---|---|
| 2 (+) — 1 (−) | Apply battery voltage. | Rotation |

2. If the blower motor does not operate normally, replace the blower motor assembly.

## AIR CONDITIONER > Power Transistor

## REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the power transistor.
   (1) Disconnect the connector.
   (2) Remove the screws and remove the power transistor.




## AIR CONDITIONER > Power Transistor

## INSTALLATION

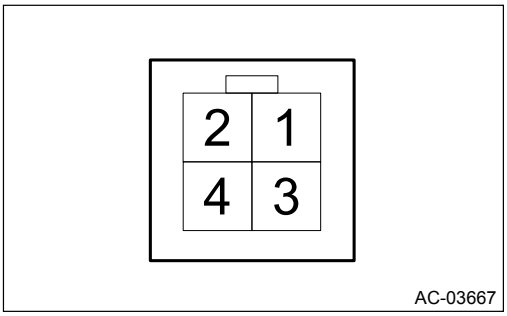
1. Install the power transistor, and connect the connector.
2. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

## AIR CONDITIONER > Power Transistor

## INSPECTION

1. Measure the resistance between connector terminals.

**Note:**
**Temperature fuse is integrated between terminals 1 — 3.**



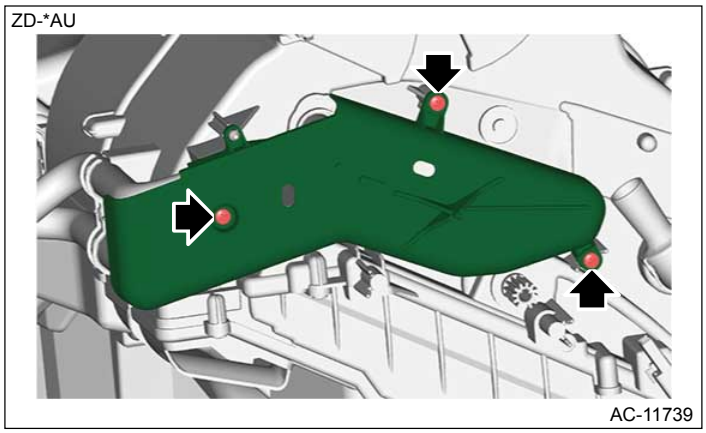

| Terminal No. | Inspection conditions | Standard |
|---|---|---|
| 1 — 4 | Always | Approx. 2.92 Ω |
| 1 — 3 | Always | Approx. 0.44 Ω |
| 1 — 2 | Always | Approx. 1.12 Ω |

2. Replace the power transistor if the inspection result is not within the standard value.

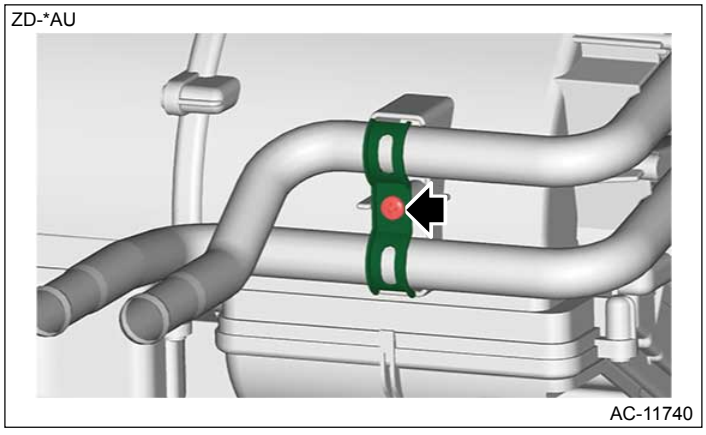
## REMOVAL

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Using the refrigerant recovery system, discharge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Drain the coolant from the radiator. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT > DRAINING OF ENGINE COOLANT.
4. Remove the instrument panel assembly and the beam steering COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.
5. Remove the heater and cooling unit assembly. Ref. to AIR CONDITIONER>Heater and Cooling Unit>REMOVAL.
6. Remove the motor actuator air mix LH. Ref. to AIR CONDITIONER>Air Mix Door Actuator>REMOVAL.
7. Remove the screws and detach the cover heater pipe.

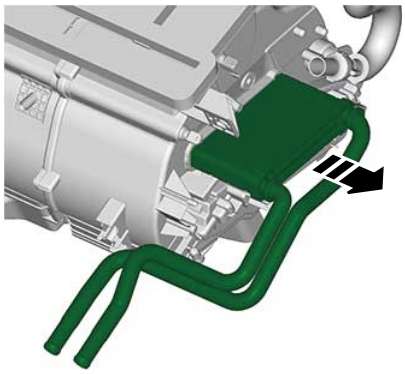



8. Remove the screw and detach the clamp heater pipe.




9. Remove the heater core as shown in the figure.

ZD-*AU



AC-11741

## AIR CONDITIONER > Heater Core

## INSTALLATION

**Caution:**

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Replace the O-rings with new parts, and then apply compressor oil to install completely.**

1. Attach the heater core.
2. Install the clamp heater pipe.
3. Install the cover heater pipe.
4. Install the motor actuator air mix LH. Ref. to AIR CONDITIONER>Air Mix Door Actuator>INSTALLATION.
5. Install the heater and cooling unit assembly. Ref. to AIR CONDITIONER>Heater and Cooling Unit>INSTALLATION.
6. Install the beam steering COMPL and the instrument panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.
7. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
8. Fill engine coolant. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT > FILLING OF ENGINE COOLANT.

## REMOVAL

## 1. COMPRESSOR ASSEMBLY

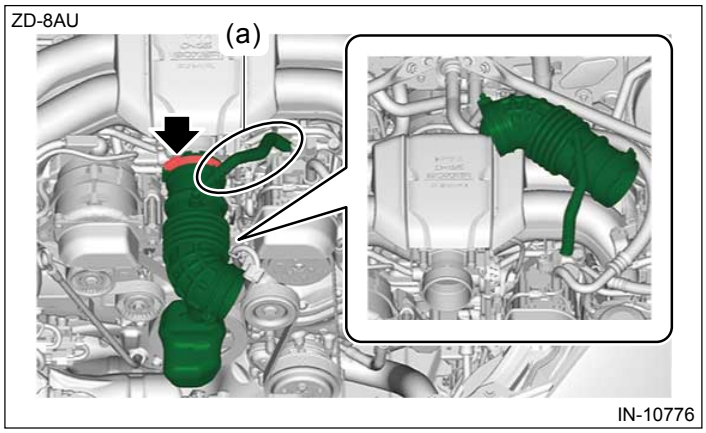
1. Using the refrigerant recovery system, discharge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
2. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Perform the steps below to remove the air intake boot, and place it aside so that it does not interfere with the work.

**Caution:**
**Do not disconnect the PCV hose No. 2 (a).**

(1) Remove the air cleaner case. Ref. to INTAKE (INDUCTION)(H4DO)>Air Cleaner Case>REMOVAL.

(2) Loosen the clamp, remove the air intake boot, and place it aside so that it does not interfere with the work.

**Caution:**
**Be careful not to pull out the PCV hose No. 2 (a).**

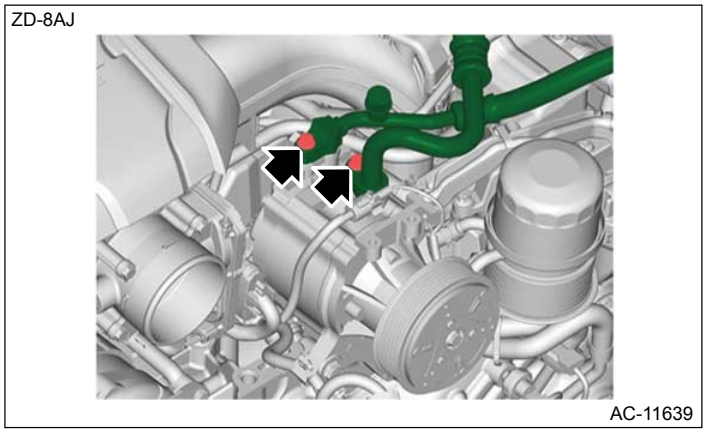



4. Remove the V-belts. Ref. to MECHANICAL(H4DO)>V-belt>REMOVAL > V-BELT.
5. Disconnect the hose pressure discharge and the hose pressure suction.

(1) Remove the bolts and disconnect the hose pressure discharge.

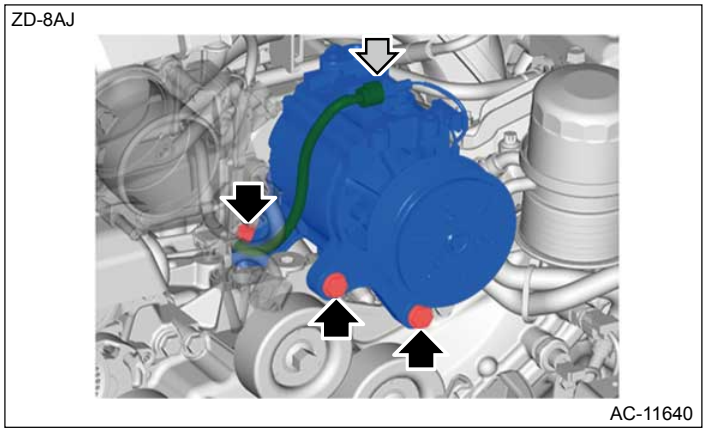
(2) Remove the bolts and detach the hose pressure suction.

**Caution:**
**Seal the disconnected hose and engaging part of compressor with a plug or vinyl tape to prevent foreign matter from entering.**




6. Remove the compressor assembly.

(1) Disconnect the connector.
(2) Remove the bolts and remove the compressor assembly.



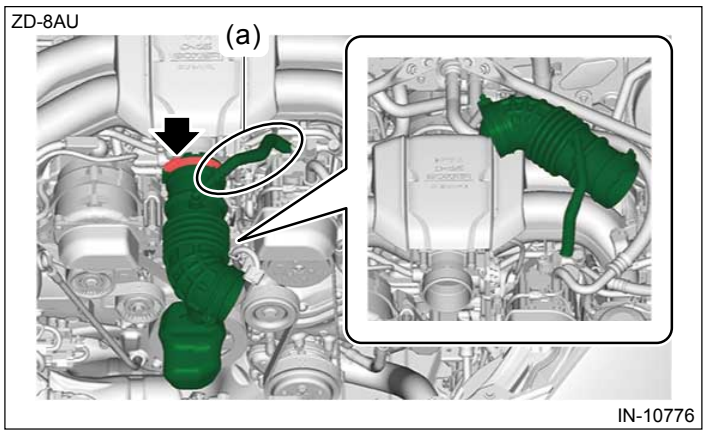

## 2. MAGNET CLUTCH ASSEMBLY

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Perform the steps below to remove the air intake boot, and place it aside so that it does not interfere with the work.

**Caution:**
**Do not disconnect the PCV hose No. 2 (a).**

(1) Remove the air cleaner case. Ref. to INTAKE (INDUCTION)(H4DO)>Air Cleaner Case>REMOVAL.
(2) Loosen the clamp, remove the air intake boot, and place it aside so that it does not interfere with the work.

**Caution:**
**Be careful not to pull out the PCV hose No. 2 (a).**

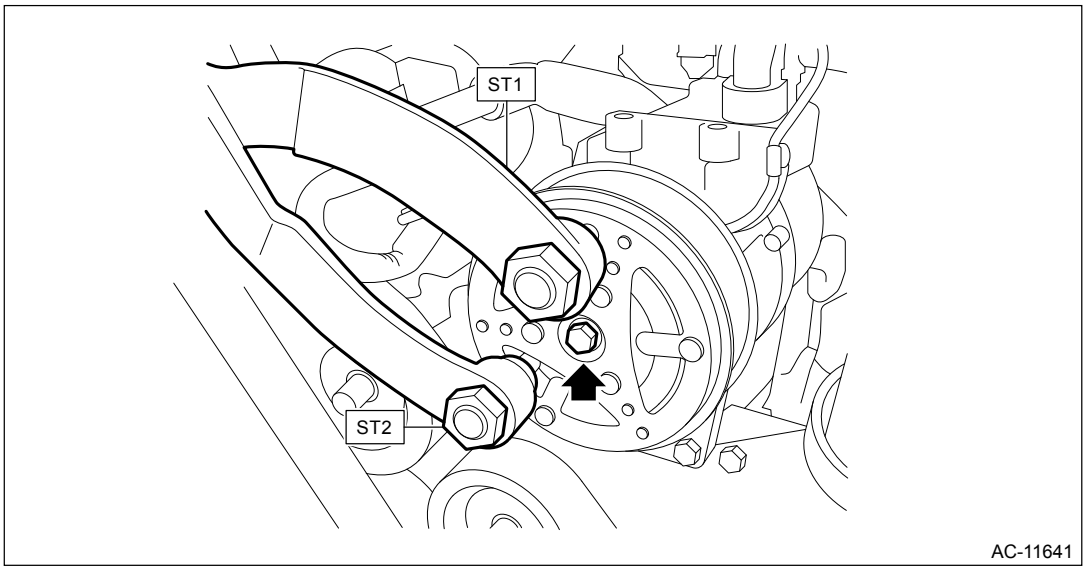



3. Remove the V-belts. Ref. to MECHANICAL(H4DO)>V-belt>REMOVAL > V-BELT.
4. Remove the magnet clutch assembly.

(1) Secure the magnet clutch hub using ST1 and ST2, and remove the bolt.

**Note:**
**Avoid damaging the magnet clutch hub by wrapping the ST with protective tape.**

**Preparation tool:**
ST1: PULLEY WRENCH (18355AA000)
ST2: PULLEY WRENCH PIN SET (18334AA020)

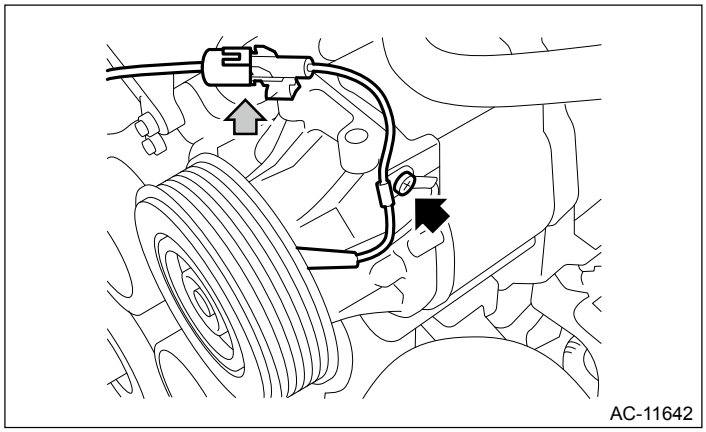



(2) Remove the magnet clutch hub.

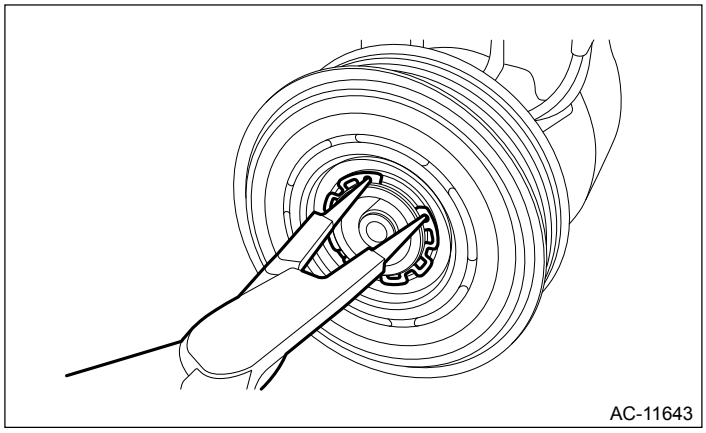
**Caution:**
**Be careful not to drop the magnet clutch washer when removing the magnet clutch hub.**

(3) Disconnect the connector.

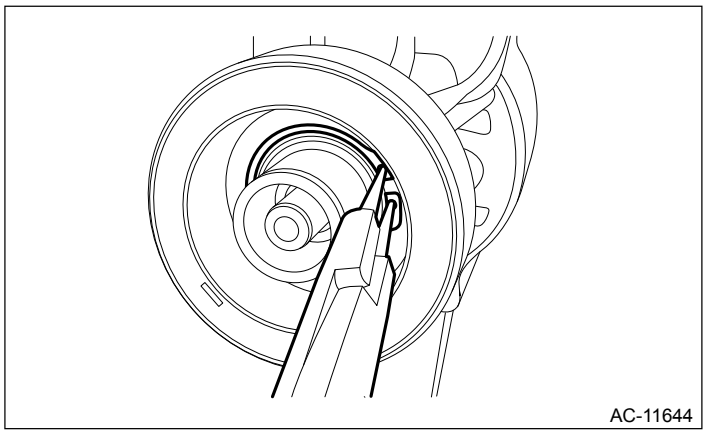
(4) Remove the screw and detach the harness clamp.




(5) Remove the snap ring, and then remove the magnet clutch pulley.




(6) Remove the snap ring, and then remove the magnet clutch stator.




AIR CONDITIONER > Compressor

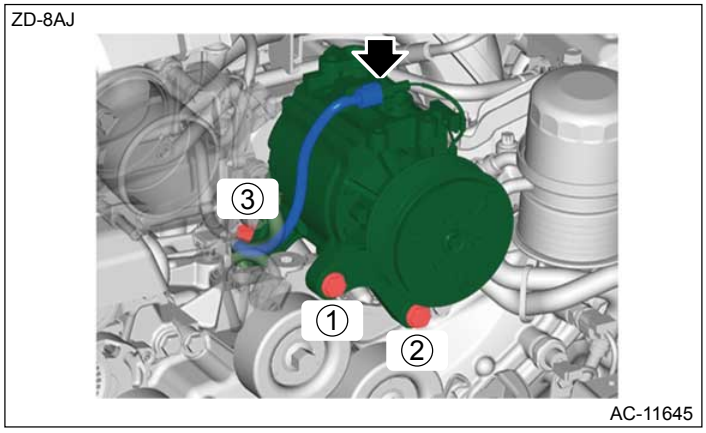
## INSTALLATION

### 1. COMPRESSOR ASSEMBLY

**Caution:**

- **Replace the O-rings with new parts, and then apply compressor oil to install completely.**
- **After replacing the compressor assembly, adjust the amount of the compressor oil. Ref. to AIR CONDITIONER>Compressor Oil>ADJUSTMENT.**

1. Install the compressor assembly.
   (1) Temporarily install the compressor assembly.
   (2) Tighten the bolts in the numerical order as shown in the figure.
   **Tightening torque:**
   36 N·m (3.7 kgf-m, 26.6 ft-lb)
   (3) Connect the connector.

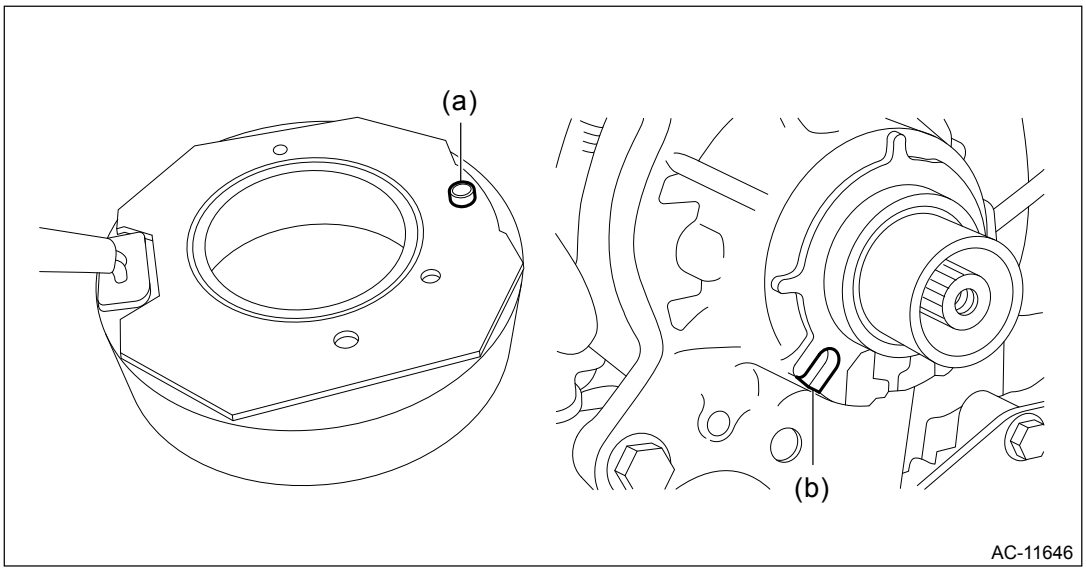



2. Install the hose pressure suction and the hose pressure discharge.
   **Tightening torque:**
   10 N·m (1.0 kgf-m, 7.4 ft-lb)
3. Install the V-belts. Ref. to MECHANICAL(H4DO)>V-belt>INSTALLATION > V-BELT.
4. Install the air intake boot. Ref. to INTAKE (INDUCTION)(H4DO)>Air Intake Boot>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
6. Charge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Charging Procedure>PROCEDURE.

### 2. MAGNET CLUTCH ASSEMBLY

**1.** Install the magnet clutch assembly.

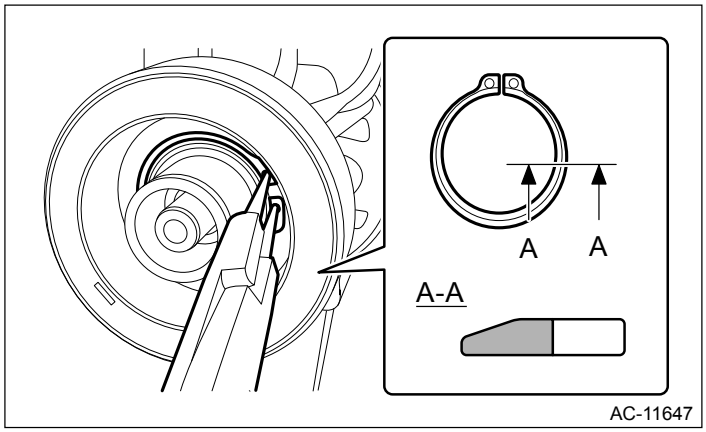
(1) Align the magnet clutch stator protrusion (a) with the compressor side cutout (b).




(2) Using the new snap ring, secure the magnet clutch stator.

**Caution:**

**Assemble the snap ring with the taper surface facing towards you.**

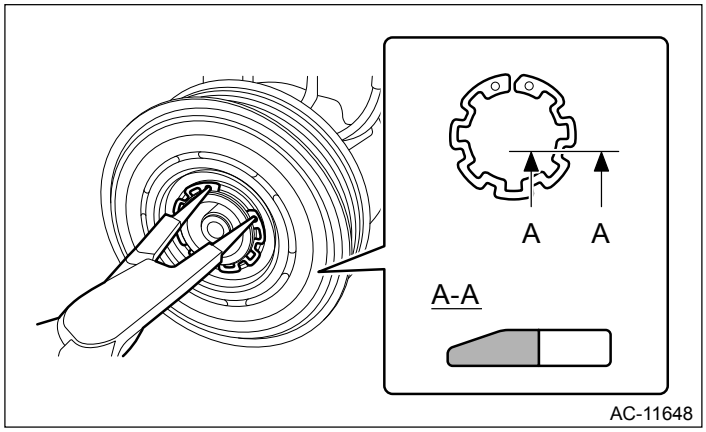



(3) Set the magnet clutch pulley.

(4) Using the new snap ring, secure the magnet clutch pulley.

**Caution:**

**Assemble the snap ring with the taper surface facing towards you.**




(5) Install the magnet clutch hub using ST1 and ST2.

**Note:**
**Avoid damaging the magnet clutch hub by wrapping ST2 with protective tape.**

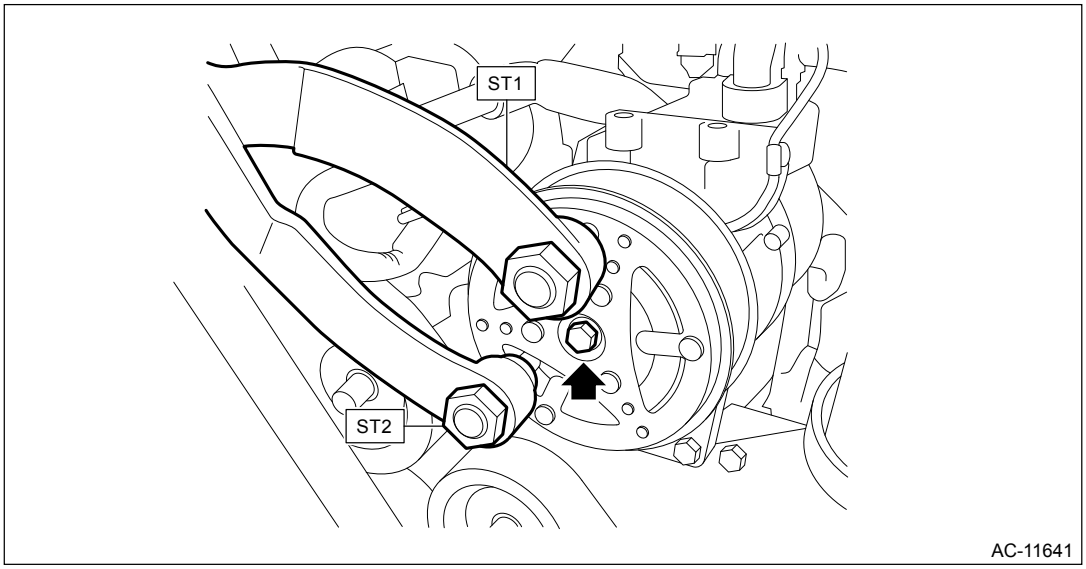
**Preparation tool:**

ST1: PULLEY WRENCH (18355AA000)

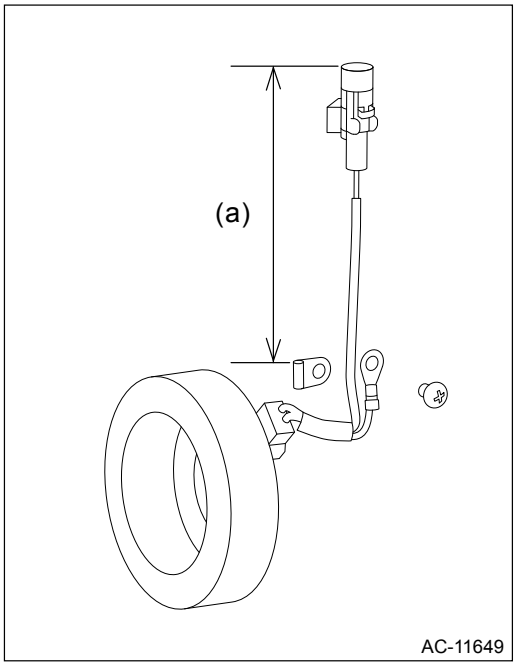
ST2: PULLEY WRENCH PIN SET (18334AA020)

**Tightening torque:**

13.2 N·m (1.3 kgf-m, 9.7 ft-lb)




(6) Install the harness clamp as in the figure.




(a) 110±15 mm (4.43±0.59 in)

(7) Connect the connector.

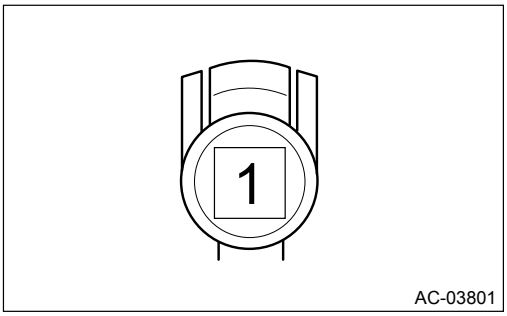
2. Install the V-belts. Ref. to MECHANICAL(H4DO)>V-belt>INSTALLATION > V-BELT.
3. Install the air intake boot. Ref. to INTAKE (INDUCTION)(H4DO)>Air Intake Boot>INSTALLATION.
4. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

## AIR CONDITIONER > Compressor

## INSPECTION

### 1. MAGNET CLUTCH OPERATION INSPECTION

1. Check the magnet clutch operation when battery voltage is applied to the connector terminal.

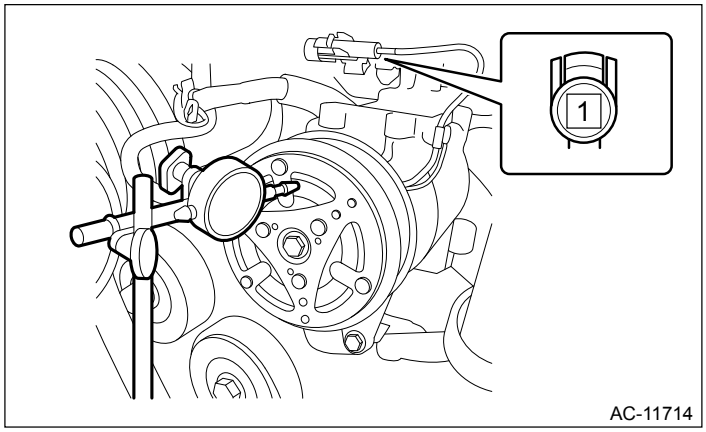



| Terminal No. | Inspection conditions | Specification |
|---|---|---|
| 1 (+) — chassis ground (−) | Apply battery voltage. | Engaged |

2. If it does not operate normally, replace the compressor assembly.

### 2. CHECK MAGNET CLUTCH GAP

1. Set the dial gauge vertically on the magnet clutch hub.
2. Check the gap when battery voltage is applied to the connector terminal.




| Terminal No. | Inspection conditions | Standard |
|---|---|---|
| 1 (+) — chassis ground (−) | Apply battery voltage. | $0.35\ ^{+0.15}_{-0.1}$ mm<br>$(0.014^{+0.006}_{-0.004}$ in) |

3. Adjust the gap with magnet clutch washers if the inspection result is not within the standard value.

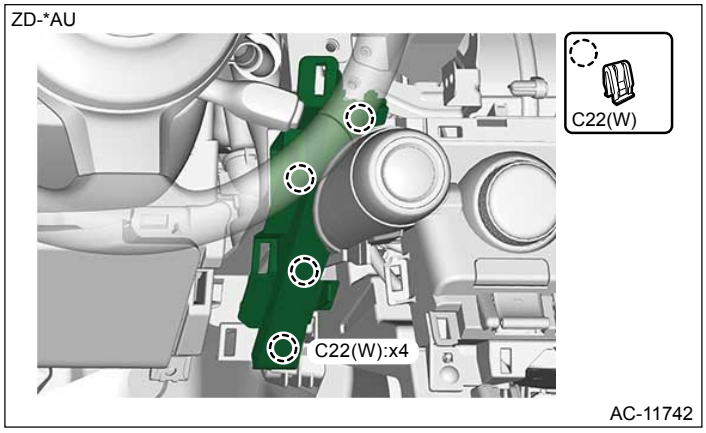
**Note:**
**The maximum number of magnet clutch washers for adjustment is three.**

## AIR CONDITIONER > Control Panel

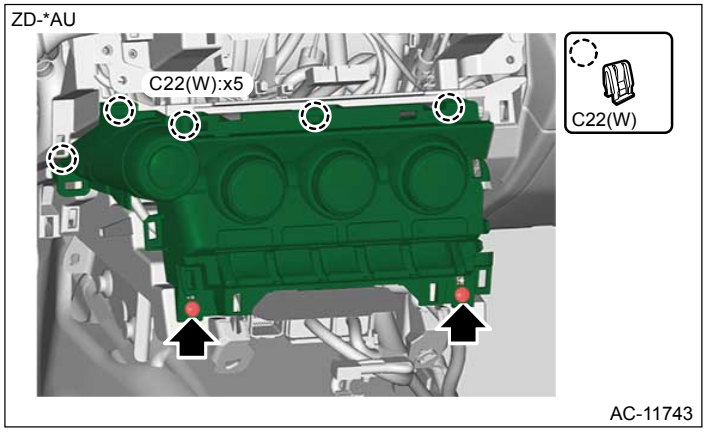
## REMOVAL

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the boot assembly parking brake and the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
3. Remove the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>REMOVAL.
4. Remove the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL > INSIDE.
5. Remove the cover assembly instrument panel side RH and the panel center UPR assembly. Ref. to AIR CONDITIONER>Air Vent Grille>REMOVAL > CENTER GRILLE.
6. Remove the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>REMOVAL.
7. Remove the heater control assembly.
   (1) Release the clips, and remove the cover assembly driver.




   (2) Remove the screws and release the claws, and then remove the heater control assembly.




   (3) Disconnect the connector, and remove the heater control assembly.
8. Remove the push button start switch. Ref. to SECURITY AND LOCKS>Push Button Ignition Switch>REMOVAL.

## AIR CONDITIONER > Control Panel

## INSTALLATION

**Caution:**

**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Install the push button start switch. Ref. to SECURITY AND LOCKS>Push Button Ignition Switch>INSTALLATION.
2. Connect the connector, and install the heater control assembly.
3. Install the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>INSTALLATION.
4. Install the panel center UPR assembly and cover assembly instrument panel side RH. Ref. to AIR CONDITIONER>Air Vent Grille>INSTALLATION > CENTER GRILLE.
5. Install the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION > INSIDE.
6. Install the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>INSTALLATION.
7. Install the console box assembly and the boot assembly parking brake. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

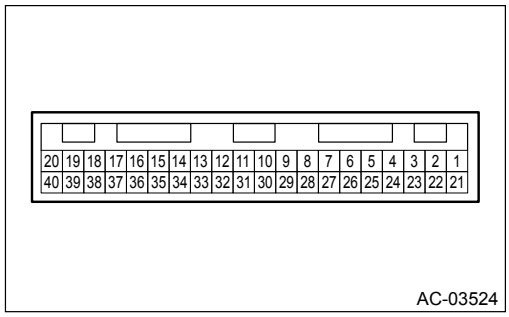
## AIR CONDITIONER > Control Panel

## INSPECTION

1. Check the illumination operation when battery voltage is applied between the connector terminals.

**Caution:**

**When applying battery voltage, do not mix up the positive (+) side and the negative (−) side. Incorrect polarity connection may cause LED damage inside the switch.**

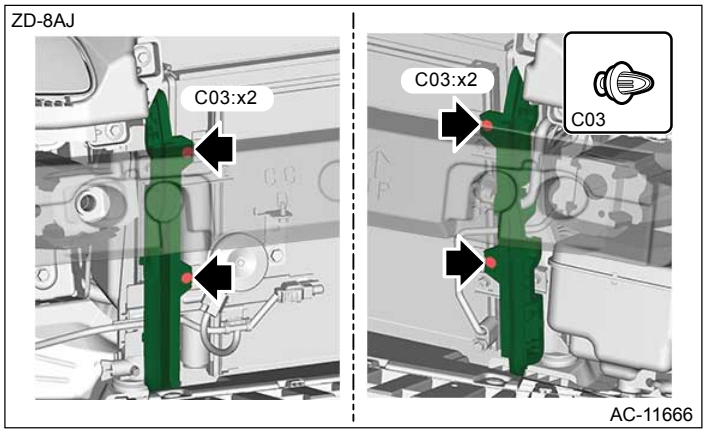



| Terminal No. | Inspection conditions | Specification |
|---|---|---|
| 19, 20, 39, 40 (+) — 10, 29 (−) | Apply battery voltage. | Light ON |

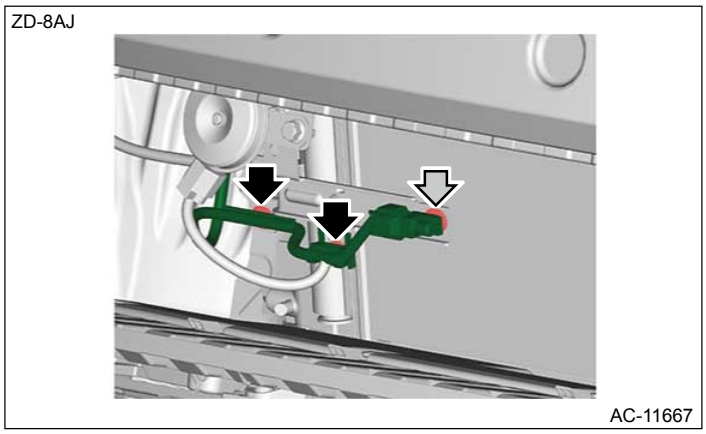
2. If it does not operate normally, replace the heater control assembly.

## REMOVAL

1. Using the refrigerant recovery system, discharge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
2. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL > BUMPER FACE.
4. Remove the air intake duct and air intake plate. Ref. to INTAKE (INDUCTION)(H4DO)>Air Intake Duct>REMOVAL.
5. Release the clips, then detach the left and air guides.




6. Remove the harness clip of the ambient sensor and the connector clip.

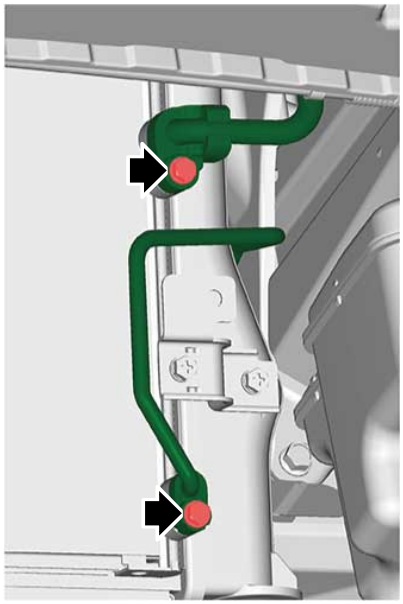



7. Detach the hose pressure discharge and the pipe evaporator cooling.

**Caution:**
**Seal the disconnected hose, pipe and engaging part of condenser assembly with a plug or vinyl tape to prevent foreign matter from entering.**

(1) Remove the bolts and disconnect the hose pressure discharge.
(2) Remove the bolt, and detach the pipe evaporator cooling.

ZD-8AJ



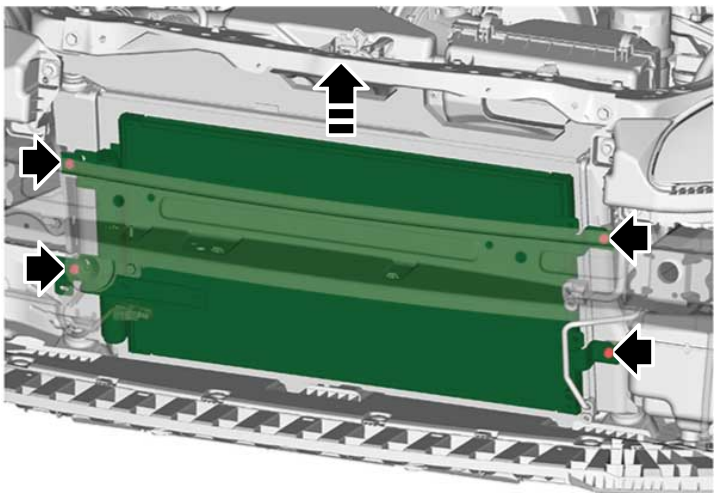
AC-11668

**8.** Remove the bolts and remove the condenser assembly.

**Caution:**

- **Be careful not to damage the condenser and radiator fin.**
- **If a damaged fin is found, repair it using a thin screwdriver.**

ZD-8AJ

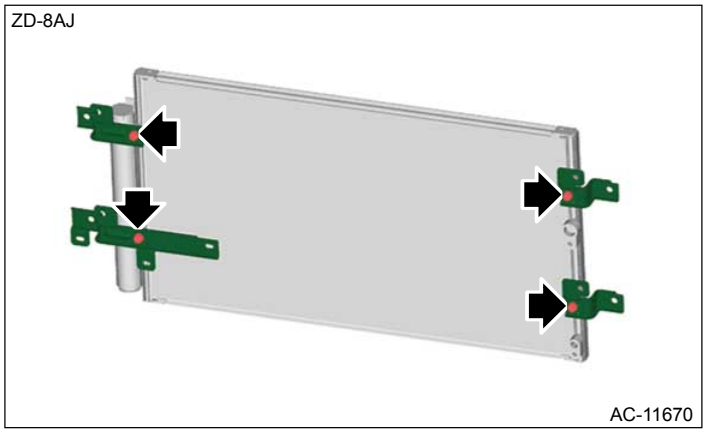


AC-11669

**9.** Remove the bolts, and then remove the bracket.

**Note:**

**Perform this procedure only when required.**




## AIR CONDITIONER > Condenser

## INSTALLATION

**Caution:**

- **Replace the O-rings with new parts, and then apply compressor oil to install completely.**
- **If the condenser assembly has been replaced, add an appropriate amount of compressor oil to the compressor. Ref. to AIR CONDITIONER>Compressor Oil>ADJUSTMENT.**

1. Attach the bracket.
   **Tightening torque:**
   6 N·m (0.6 kgf-m, 4.4 ft-lb)
2. Install the condenser assembly.
   **Tightening torque:**
   6 N·m (0.6 kgf-m, 4.4 ft-lb)
3. Install the hose pressure discharge and the pipe evaporator cooling.
   **Tightening torque:**
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
4. Install the harness clip of the ambient sensor and the connector clip.
5. Install the left and right air guides.
6. Install the air intake plate and air intake duct. Ref. to INTAKE (INDUCTION)(H4DO)>Air Intake Duct>INSTALLATION.
7. Install the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>INSTALLATION > BUMPER FACE.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
9. Charge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Charging Procedure>PROCEDURE.

## AIR CONDITIONER > Condenser

## INSPECTION

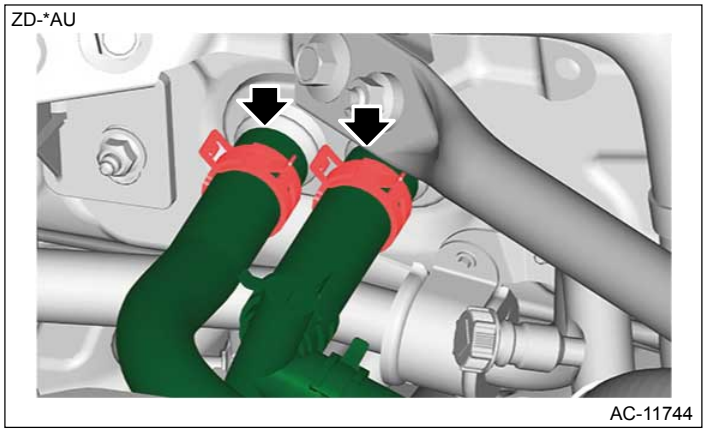
1. Check to see that the condenser fins are not clogged with debris or insects. Blow with compressed air or flush fins with water as needed.
2. If any oil leak is found, replace the condenser assembly.

## REMOVAL

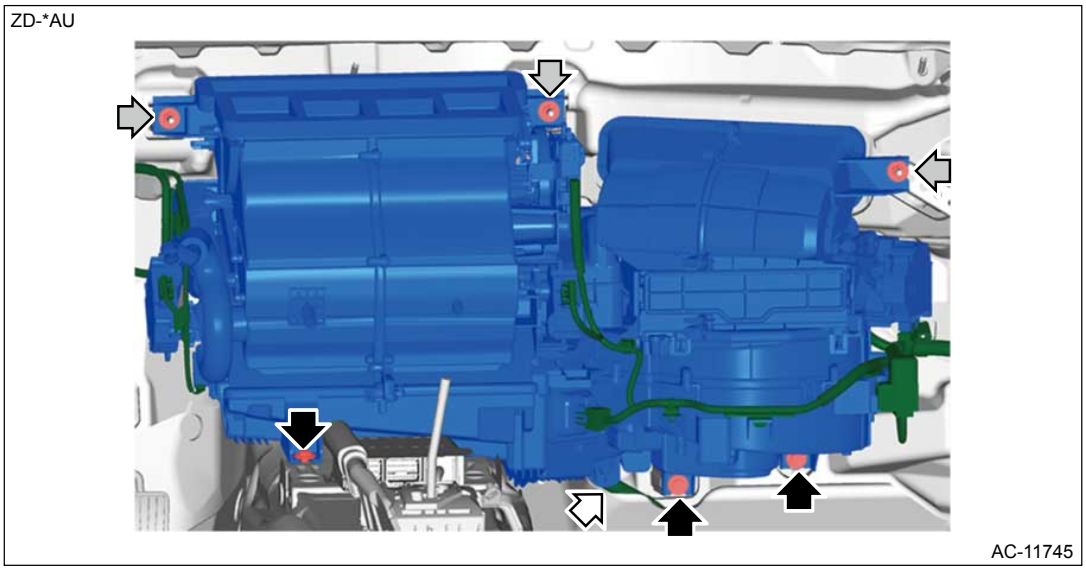
**Caution:**

- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**
- **Seal the disconnected hose, pipe and engaging part of expansion valve with a plug or vinyl tape to prevent foreign matter from entering.**

1. Using the refrigerant recovery system, discharge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Drain the coolant from the radiator. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT > DRAINING OF ENGINE COOLANT.
4. Disconnect the hose pressure suction on the expansion valve side. Ref. to AIR CONDITIONER>Hose and Pipe>REMOVAL.
5. Disconnect the hose heater outlet and the hose heater inlet.
   (1) Put alignment marks to hoses, heat hose clips, etc.
   (2) Loosen the heater hose clip, and detach the hose heater outlet.
   (3) Loosen the heater hose clip, and detach the hose heater inlet.




6. Remove the instrument panel assembly and the beam steering COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.
7. Remove the heater and cooling unit assembly.
   (1) Remove the hose drain.
   (2) Remove each connector and harness clamp.
   (3) Remove the bolts and nuts, and remove the heater & cooling unit assembly.




## AIR CONDITIONER > Heater and Cooling Unit

## INSTALLATION

**Caution:**

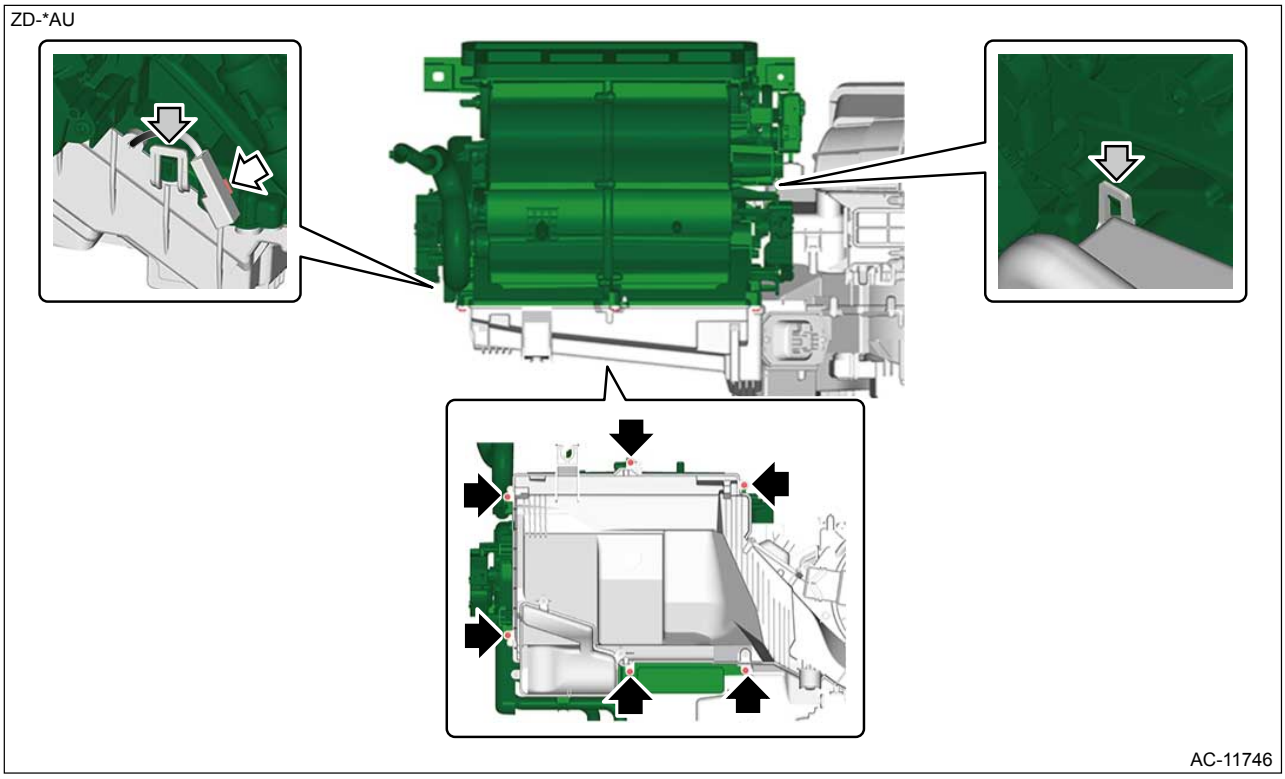
- **Replace the O-rings with new parts, and then apply compressor oil to install completely.**
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Install the heater & cooling unit assembly and then connect the connector.
   **Tightening torque:**
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
2. Install the hose drain.
3. Install the beam steering COMPL and the instrument panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.
4. Connect the hose heater outlet and the hose heater inlet.
5. Connect the hose pressure suction on the expansion valve side. Ref. to AIR CONDITIONER>Hose and Pipe>INSTALLATION.
6. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
7. Fill engine coolant. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT > FILLING OF ENGINE COOLANT.

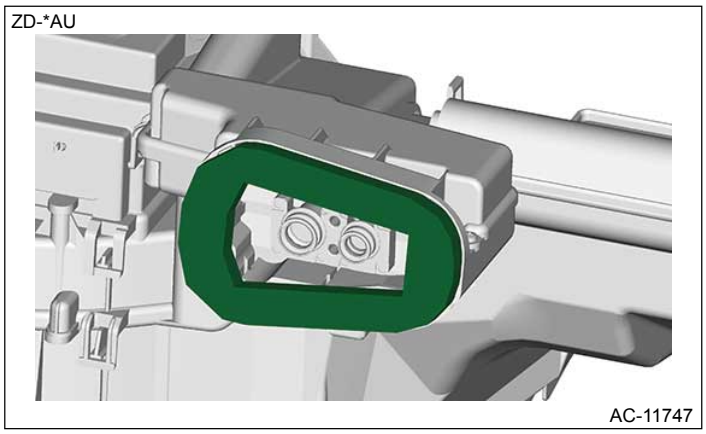
## REMOVAL

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

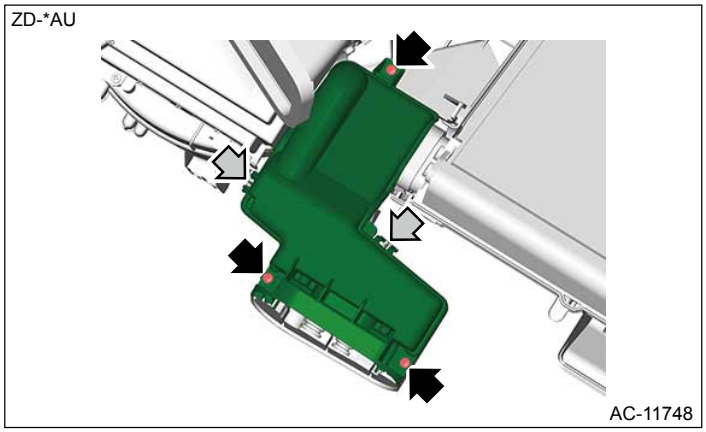
1. Using the refrigerant recovery system, discharge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Drain the coolant from the radiator. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT > DRAINING OF ENGINE COOLANT.
4. Remove the strut tower bar RH. Ref. to FRONT SUSPENSION>Strut Tower Bar>REMOVAL.
5. Remove the expansion valve. Ref. to AIR CONDITIONER>Expansion Valve>REMOVAL.
6. Remove the instrument panel assembly and the beam steering COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.
7. Remove the heater and cooling unit assembly. Ref. to AIR CONDITIONER>Heater and Cooling Unit>REMOVAL.
8. Remove the duct foot passenger. Ref. to AIR CONDITIONER>Air Vent Duct>REMOVAL > FOOT DUCT.
9. Remove the screws and release the connector clips and claws, and then remove the case assembly heater unit.




10. Remove the gasket expansion valve.

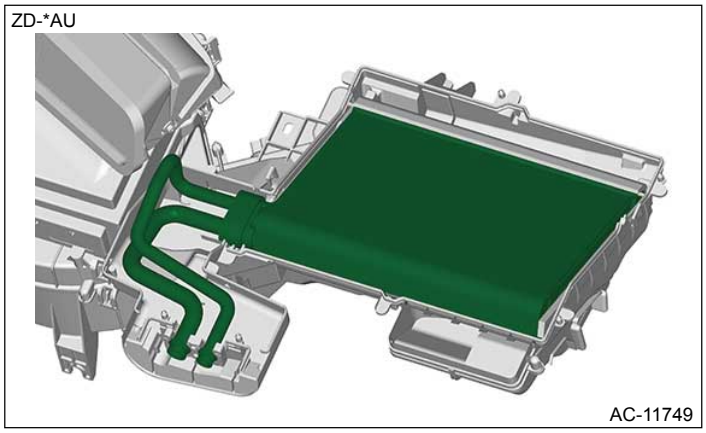



**11.** Remove the screws and release the claws, then detach the cover evaporator.



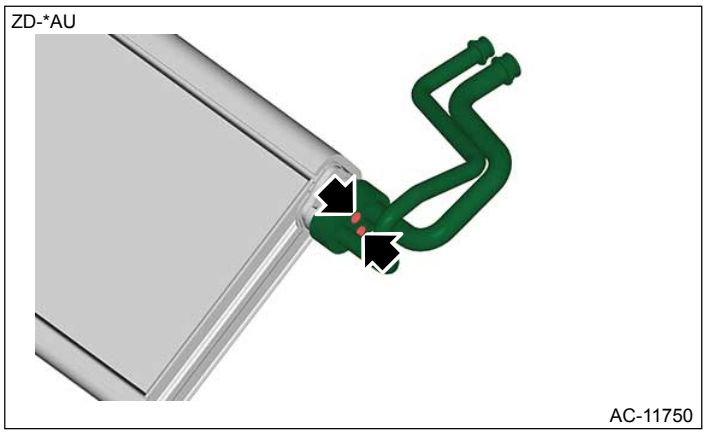

**12.** Remove the evaporator sensor. Ref. to AIR CONDITIONER>Evaporator Sensor>REMOVAL.

**13.** Remove the evaporator assembly.




**14.** Using a hexagon wrench, remove the bolts and remove the pipe evaporator.

**Note:**
**Perform this procedure only when required.**




## AIR CONDITIONER > Evaporator

## INSTALLATION

**Caution:**

- **If the evaporator has been replaced, add an appropriate amount of compressor oil to the compressor. Ref. to AIR CONDITIONER>Compressor Oil>ADJUSTMENT.**
- **Replace the O-rings with new parts, and then apply compressor oil to install completely.**
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Using a hexagon wrench, install the pipe evaporator.
   **Tightening torque:**
   3.5 N·m (0.4 kgf-m, 2.6 ft-lb)
2. Install the evaporator assembly.
3. Install the evaporator sensor to the specified location. Ref. to AIR CONDITIONER>Evaporator Sensor>INSTALLATION.
4. Install the cover evaporator.
5. Install the gasket expansion valve.
6. Install the case assembly heater unit.
7. Install the duct foot passenger. Ref. to AIR CONDITIONER>Air Vent Duct>INSTALLATION > FOOT DUCT.
8. Install the heater and cooling unit assembly. Ref. to AIR CONDITIONER>Heater and Cooling Unit>INSTALLATION.
9. Install the beam steering COMPL and the instrument panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.
10. Install the expansion valve. Ref. to AIR CONDITIONER>Expansion Valve>INSTALLATION.
11. Install the strut tower bar RH. Ref. to FRONT SUSPENSION>Strut Tower Bar>INSTALLATION.
12. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
13. Fill engine coolant. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT > FILLING OF ENGINE COOLANT.

## AIR CONDITIONER > Evaporator

## INSPECTION

1. Check the evaporator fin for dust. Blow with compressed air or flush fins with water as needed.
2. If any oil leak is found from the evaporator, replace the evaporator assembly.

## REMOVAL

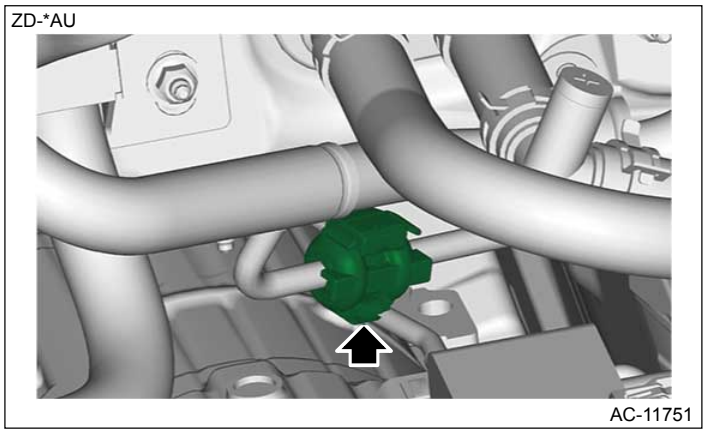
1. Using the refrigerant recovery system, discharge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
2. Remove the strut tower bar RH. Ref. to FRONT SUSPENSION>Strut Tower Bar>REMOVAL.
3. Disconnect the hose pressure suction.

**Caution:**
- **Do not apply excessive force to the hose.**
- **Seal the disconnected hose, pipe and engaging part of expansion valve with a plug or vinyl tape to prevent foreign matter from entering.**

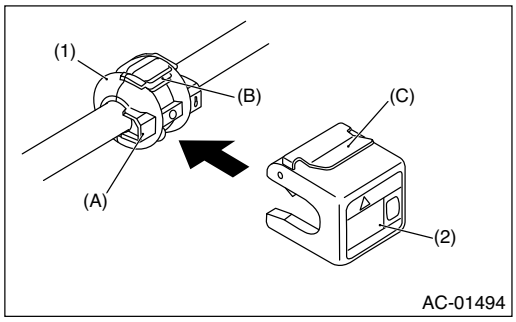
(1) Using ST, disconnect the quick connector.

**Preparation tool:**

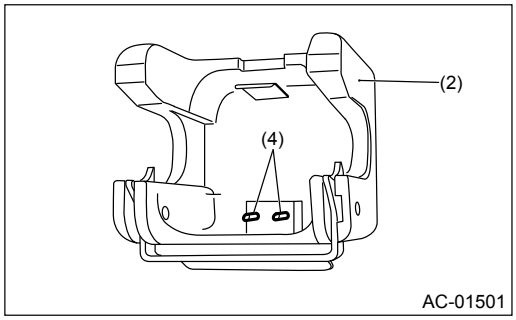
ST: SP TL REMOVER PD (73499XA00A)

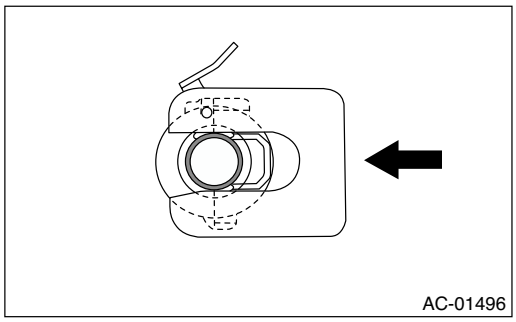



1. Face collar side (A) of the quick connector (1) to the remover (2), and set lock part (B) on the stopper side (C) of the remover.

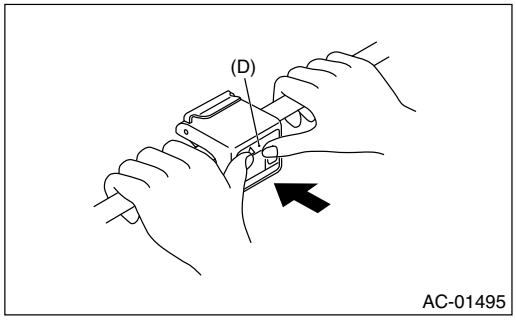


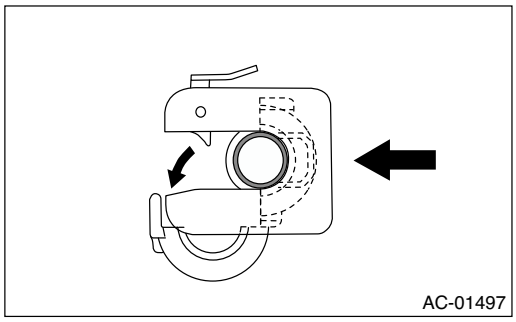

2. Insert the remover taking care not to bend the needle (4) in the remover.



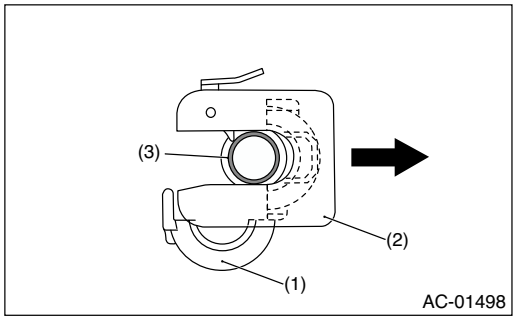



3. With the pipe secured, press the label part (D) of the remover with a thumb. Connector is unlocked and the quick connector opens.

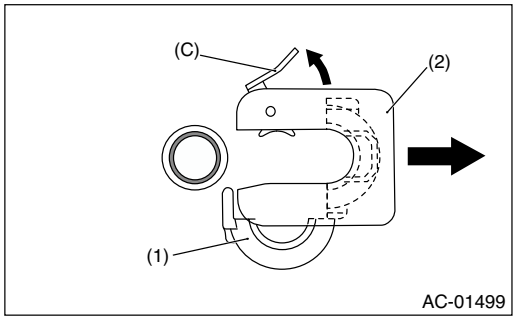


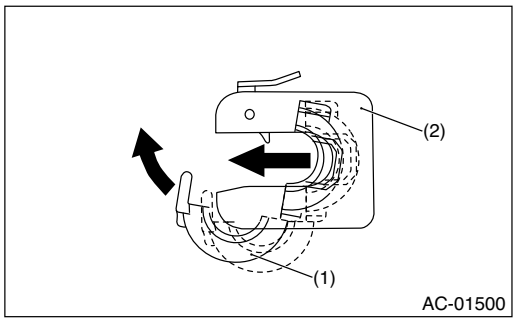

4. Pull the remover (2) and separate the pipe (3) from the quick connector (1).



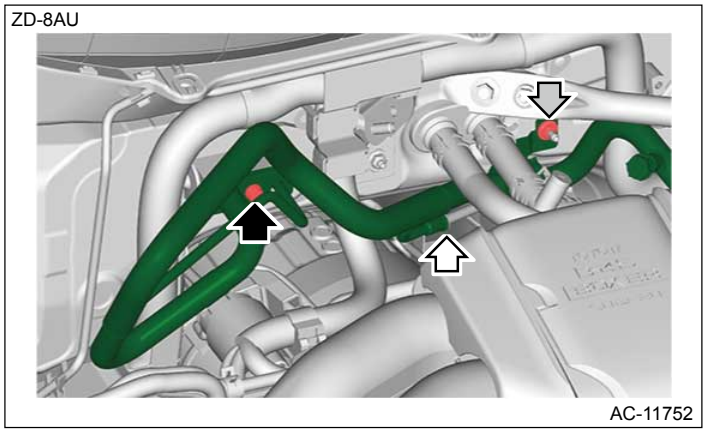

5. Pull up the stopper (C) and remove the remover (2) and quick connector (1) from the pipe.




6. Remove the quick connector (1) from the remover (2).

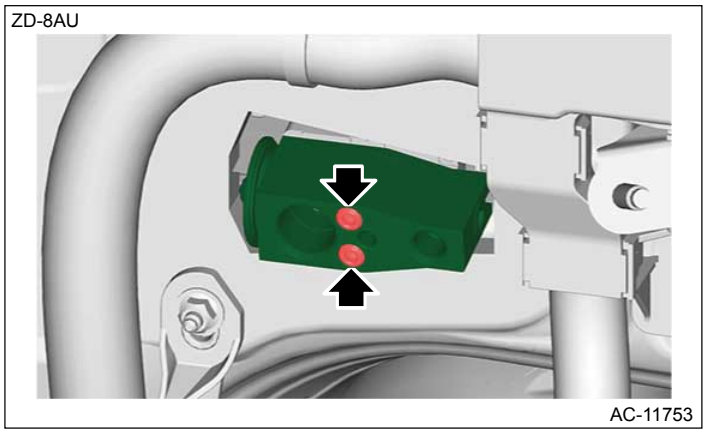



(2) Remove the bolts and nuts, and detach the hose pressure suction.




**4.** Using the hexagon wrench, remove the bolts, then remove the expansion valve.

**Caution:**
**Seal the engaging part of pipe and expansion valve with a plug or vinyl tape to prevent foreign matter from entering.**




## AIR CONDITIONER > Expansion Valve

## INSTALLATION

**Caution:**
**Replace the O-rings with new parts, and then apply compressor oil to install completely.**

**1.** Using the hexagon wrench, Install the expansion valve.
**Tightening torque:**
3.5 N·m (0.4 kgf-m, 2.6 ft-lb)

**2.** Connect the hose pressure suction.
(1) Connect the hose pressure suction.

**Tightening torque:**

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

(2) Install the quick connector.

3. Install the strut tower bar RH. Ref. to FRONT SUSPENSION>Strut Tower Bar>INSTALLATION.
4. Charge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Charging Procedure>PROCEDURE.

## REMOVAL

## 1. LOW-PRESSURE HOSE

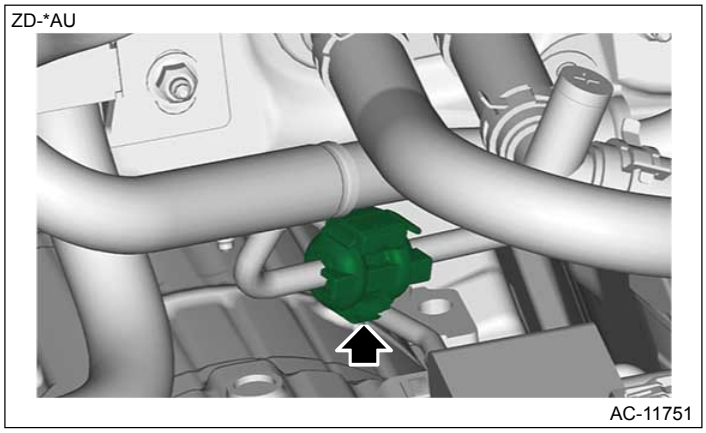
1. Using the refrigerant recovery system, discharge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
2. Remove the strut tower bar RH. Ref. to FRONT SUSPENSION>Strut Tower Bar>REMOVAL.
3. Remove the hose pressure suction.

**Caution:**
- **Do not apply excessive force to the hose.**
- **Seal the engaging part of disconnected hose, pipe, compressor assembly, and expansion valve with a plug or vinyl tape to prevent foreign matter from entering.**

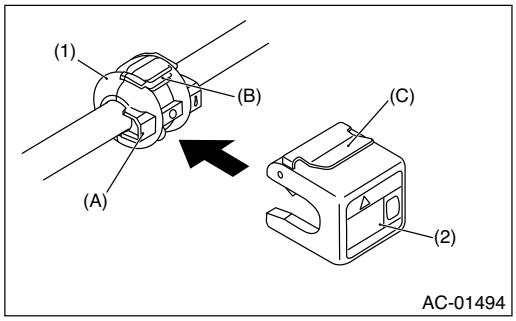
(1) Using ST, disconnect the quick connector.

**Preparation tool:**

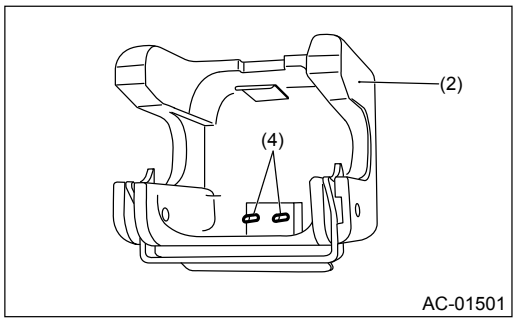
ST: SP TL REMOVER PD (73499XA00A)

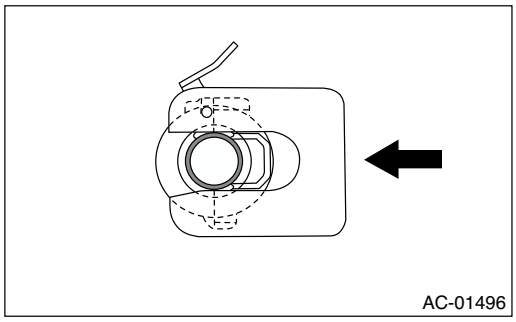



1. Face collar side (A) of the quick connector (1) to the remover (2), and set lock part (B) on the stopper side (C) of the remover.

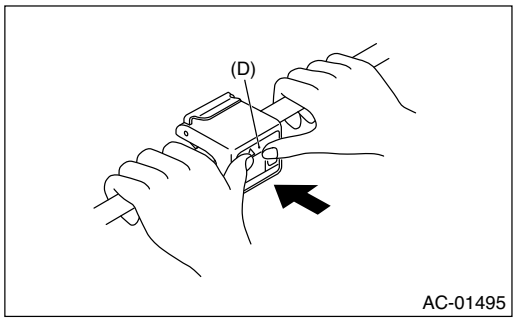


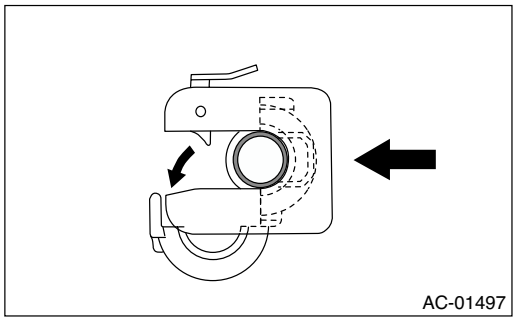

2. Insert the remover taking care not to bend the needle (4) in the remover.



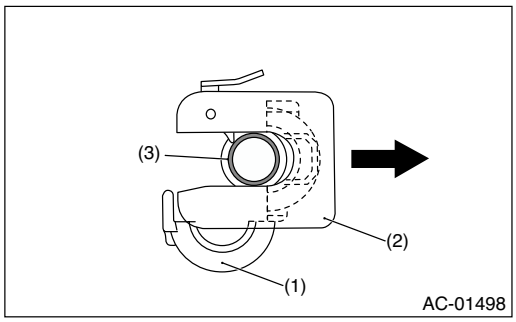




3. With the pipe secured, press the label part (D) of the remover with a thumb. Connector is unlocked and the quick connector opens.

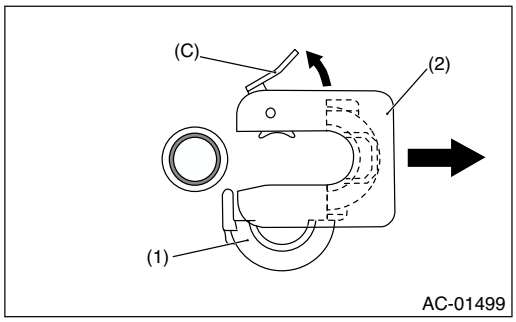


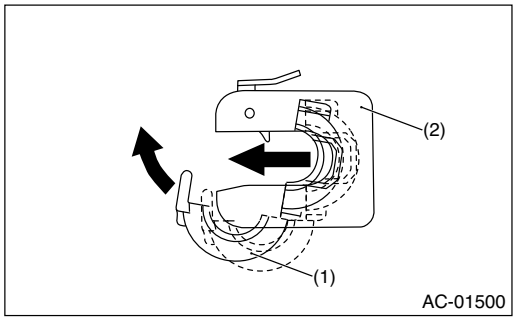

4. Pull the remover (2) and separate the pipe (3) from the quick connector (1).



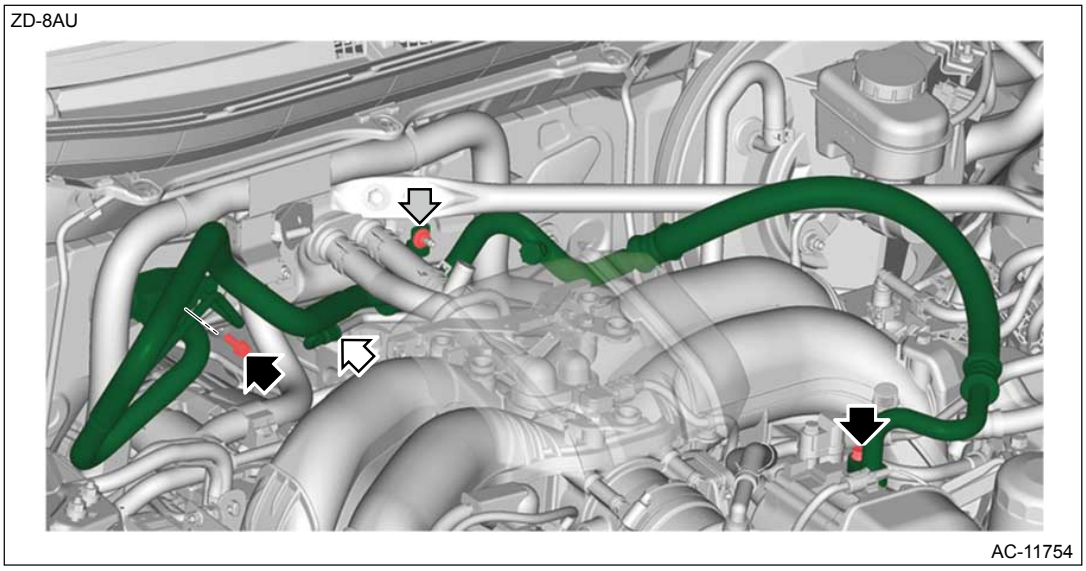

5. Pull up the stopper (C) and remove the remover (2) and quick connector (1) from the pipe.




6. Remove the quick connector (1) from the remover (2).

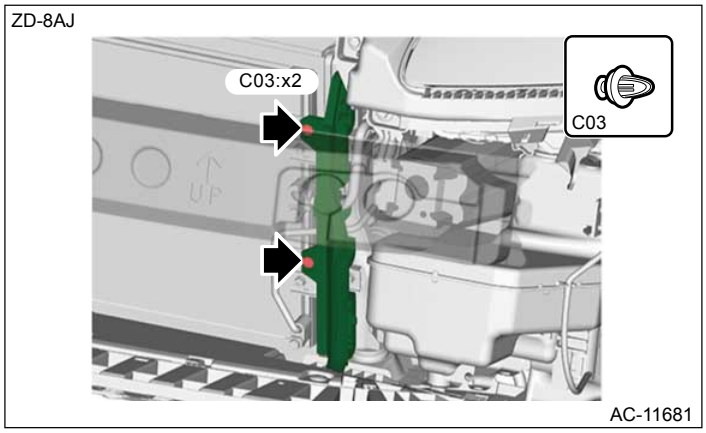



(2) Remove the bolt and nut, and detach the hose pressure suction.



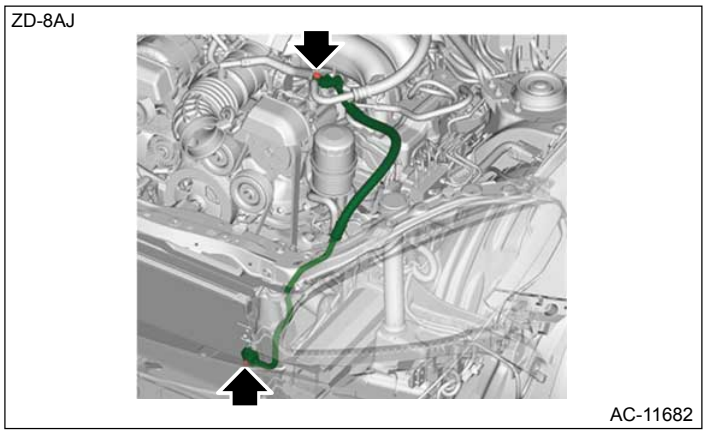

## 2. HIGH-PRESSURE HOSE

1. Using the refrigerant recovery system, discharge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
2. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL > BUMPER FACE.
4. Remove the air cleaner case. Ref. to INTAKE (INDUCTION)(H4DO)>Air Cleaner Case>REMOVAL.
5. Remove the air intake duct and air intake plate. Ref. to INTAKE (INDUCTION)(H4DO)>Air Intake Duct>REMOVAL.
6. Release the clips, then detach the air guide LH.




**7.** Remove the bolts, and remove the hose pressure discharge.

**Caution:**
- **Do not apply excessive force to the hose.**
- **Seal the disconnected hose, compressor assembly and engaging part of condenser assembly with a plug or vinyl tape to prevent foreign matter from entering.**




## 3. A/C PIPE

**1.** Using the refrigerant recovery system, discharge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.

**2.** Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

**3.** Remove the strut tower bar LH and RH. Ref. to FRONT SUSPENSION>Strut Tower Bar>REMOVAL.

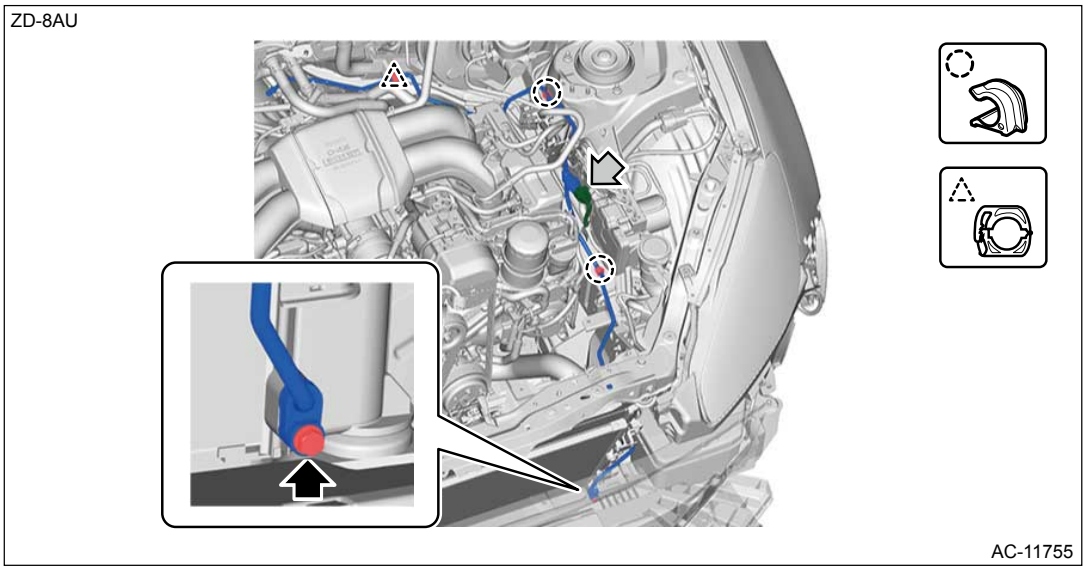
**4.** Remove the hose pressure discharge. Ref. to AIR CONDITIONER>Hose and Pipe>REMOVAL > HIGH-PRESSURE HOSE.

**5.** Remove the hose pressure suction. Ref. to AIR CONDITIONER>Hose and Pipe>REMOVAL > LOW-PRESSURE HOSE.

**6.** Remove the pipe evaporator cooling.

**Caution:**
- **Do not apply excessive force to the pipe.**
- **Seal the engaging parts of disconnected pipe, expansion valve and condenser assembly with a plug or vinyl tape to prevent foreign matter from entering.**
- **Do not pull the harness and cable forcibly.**

(1) Disconnect the pressure switch connector.
(2) Remove the bolt, and detach the pipe evaporator cooling.
(3) Remove the pipe evaporator cooling from the clip and clamp.




AIR CONDITIONER > Hose and Pipe

## INSTALLATION

### 1. LOW-PRESSURE HOSE

**Caution:**

- **If the hose and pipe has been replaced, add an appropriate amount of compressor oil to the compressor. Ref. to AIR CONDITIONER>Compressor Oil>ADJUSTMENT.**
- **Replace the O-rings with new parts, and then apply compressor oil to install completely.**
- **When connecting hoses, do not apply an excessive force to them. After installing, check that no torsion or excessive tension applied to the hoses.**

1. Install the hose pressure suction.
   (1) Install the hose pressure suction.
   **Tightening torque:**
   Refer to "COMPONENT" of "General Description" for the tightening torque. Ref. to AIR CONDITIONER>General Description>COMPONENT > AIR CONDITIONING UNIT.
   (2) Install the quick connector.
2. Install the strut tower bar RH. Ref. to FRONT SUSPENSION>Strut Tower Bar>INSTALLATION.
3. Charge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Charging Procedure>PROCEDURE.

### 2. HIGH-PRESSURE HOSE

**Caution:**

- **If the hose and pipe has been replaced, add an appropriate amount of compressor oil to the compressor. Ref. to AIR CONDITIONER>Compressor Oil>ADJUSTMENT.**
- **Replace the O-rings with new parts, and then apply compressor oil to install completely.**
- **When connecting hoses, do not apply an excessive force to them. After installing, check that no torsion or excessive tension applied to the hoses.**

1. Install the hose pressure discharge.
   **Tightening torque:**
   Refer to "COMPONENT" of "General Description" for the tightening torque. Ref. to AIR CONDITIONER>General Description>COMPONENT > AIR CONDITIONING UNIT.
2. Install the air guide LH.

3. Install the air intake plate and air intake duct. Ref. to INTAKE (INDUCTION)(H4DO)>Air Intake Duct>INSTALLATION.
4. Install the air cleaner case. Ref. to INTAKE (INDUCTION)(H4DO)>Air Cleaner Case>INSTALLATION.
5. Install the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>INSTALLATION > BUMPER FACE.
6. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
7. Charge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Charging Procedure>PROCEDURE.

## 3. A/C PIPE

**Caution:**

- **If the hose and pipe has been replaced, add an appropriate amount of compressor oil to the compressor. Ref. to AIR CONDITIONER>Compressor Oil>ADJUSTMENT.**
- **Replace the O-rings with new parts, and then apply compressor oil to install completely.**
- **When connecting pipes, do not apply an excessive force to them. After installation, check that the pipes are not damaged.**

1. Install the pipe evaporator cooling.
   (1) Install the pipe evaporator cooling.
   **Tightening torque:**
   7.5 N·m (0.8 kgf-m, 5.5 ft-lb)
   (2) Connect the connector of the pressure switch.
2. Install the hose pressure suction. Ref. to AIR CONDITIONER>Hose and Pipe>INSTALLATION > LOW-PRESSURE HOSE.
3. Install the hose pressure discharge. Ref. to AIR CONDITIONER>Hose and Pipe>INSTALLATION > HIGH-PRESSURE HOSE.
4. Install the strut tower bar LH and RH. Ref. to FRONT SUSPENSION>Strut Tower Bar>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
6. Charge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Charging Procedure>PROCEDURE.

### AIR CONDITIONER > Hose and Pipe

### INSPECTION

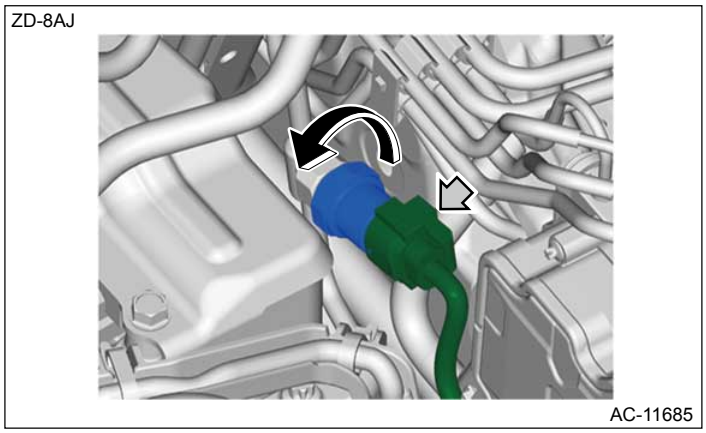
1. Check the hoses for cracks, damage and expansion. If there is a malfunction, replace the hose pressure suction or the hose pressure discharge.
2. Check the pipes for crack or damage. If there is a malfunction, replace the pipe evaporator cooling.

## AIR CONDITIONER > Pressure Switch (Triple Pressure Switch)

### REMOVAL

1. Using the refrigerant recovery system, discharge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
2. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the pressure switch.
   (1) Disconnect the connector.
   (2) Remove the pressure switch as shown in the figure.

**Caution:**
- **Do not deform the pipe.**
- **Seal the engaging parts of the disconnected pipe and switch with a plug or vinyl tape to prevent foreign matter from entering.**
- **Do not re-use the switch.**




## AIR CONDITIONER > Pressure Switch (Triple Pressure Switch)

### INSTALLATION

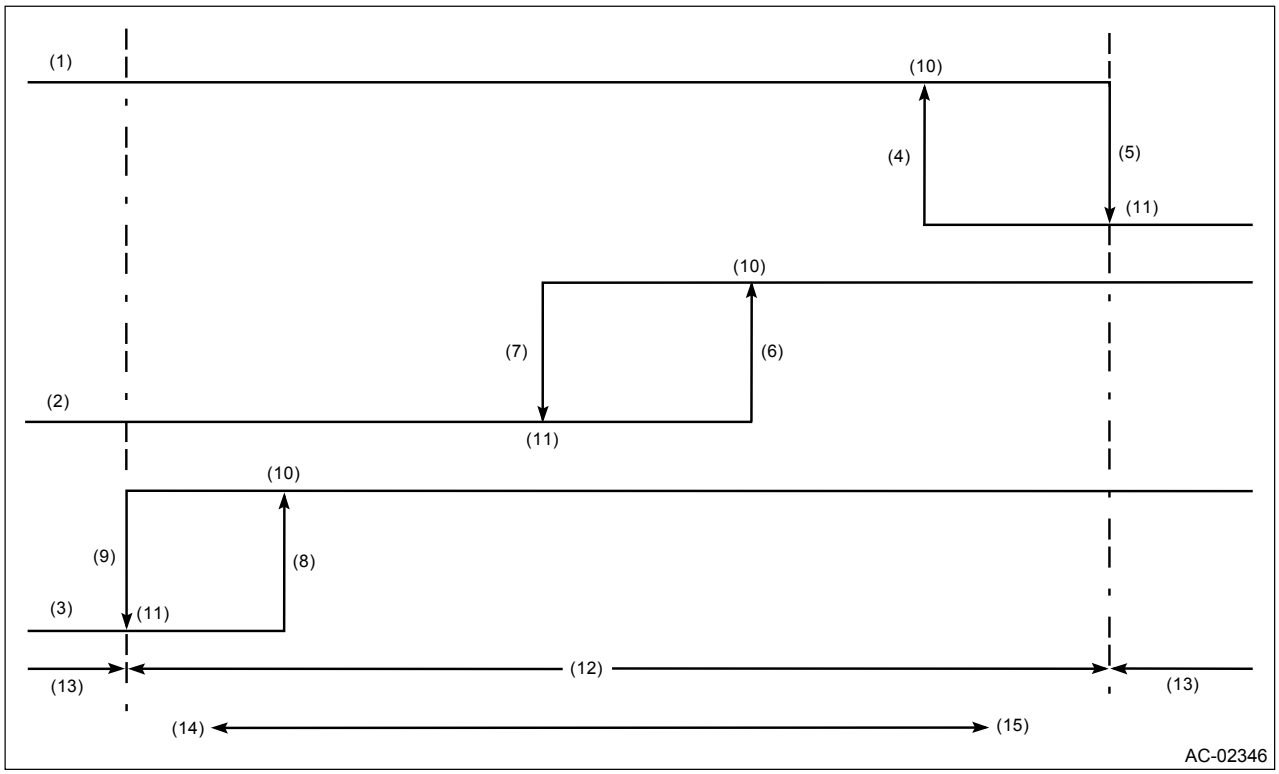
**Caution:**
**Replace the O-rings with new parts, and then apply compressor oil to install completely.**

1. Install a new pressure switch and O-rings.
   **Tightening torque:**
   10.8 N·m (1.1 kgf-m, 8 ft-lb)
2. Connect the connector of the pressure switch.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
4. Charge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Charging Procedure>PROCEDURE.

## AIR CONDITIONER > Pressure Switch (Triple Pressure Switch)

### INSPECTION

1. Connect the manifold gauge to the service valve on the high-pressure side.
2. Measure the resistance between connector terminals. Operation of each switch is as follows.




(1) High pressure switch

(2) Middle pressure switch

(3) Low pressure switch

(4) 2,386±325 kPa (24.33±3.31 kgf/cm$^2$, 346±47.1 psi)

(5) $2{,}976^{+50}_{-200}$ kPa ($30.35^{+0.51}_{-2.04}$ kgf/cm$^2$, $431.5^{+7.2}_{-29}$ psi)

(6) 1,520±80 kPa (15.5±0.82 kgf/cm$^2$, 220.4±11.6 psi)

(7) 1,230±120 kPa (12.54±1.22 kgf/cm$^2$, 178.3±17.4 psi)

(8) $248^{+25}_{-29}$ kPa ($2.53^{+0.25}_{-0.3}$ kgf/cm$^2$, $36^{+3.6}_{-4.2}$ psi)

(9) 219±20 kPa (2.23±0.2 kgf/cm$^2$, 31.8±2.9 psi)

(10) ON

(11) OFF

(12) Operative range of compressor

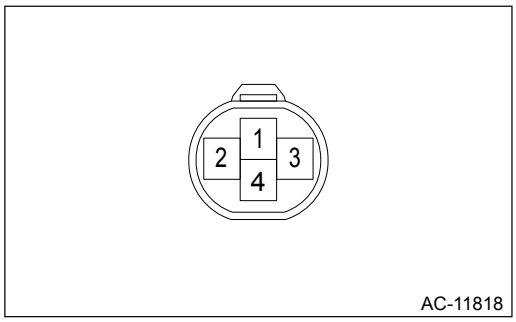
(13) Inoperative range of compressor

(14) Low pressure

(15) High pressure

**Note:**

- **High pressure switch turns the compressor (magnet clutch) to OFF when the refrigerant pressure becomes extremely high to prevent the evaporator, air conditioner piping and expansion valve from getting damaged, etc.**
- **The middle pressure switch is used to effectively control the radiator fan output by judging high load/low load in normal pressure range.**
- **The low pressure switch detects a refrigerant shortage and deactivates the compressor (magnet clutch) if the refrigerant pressure is abnormally low. (Because any further compressor operation in such a state may lead to compressor seizure)**



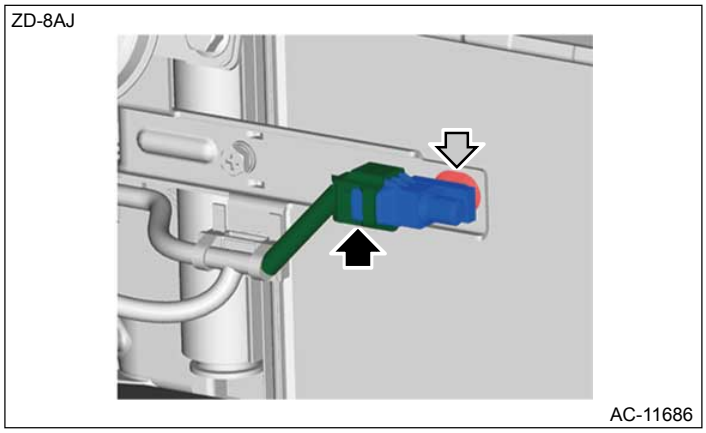

| Terminal No. | Inspection conditions | Standard |
|---|---|---|
| 2 — 3 | High pressure switch: ON<br>Low pressure switch: ON | Less than 1 Ω |
| 2 — 3 | High pressure switch: OFF | 1 MΩ or more |
| 2 — 3 | Low pressure switch: OFF | 1 MΩ or more |
| 1 — 4 | Middle pressure switch: ON | Less than 1 Ω |
| 1 — 4 | Middle pressure switch: OFF | 1 MΩ or more |

***3.*** Replace the pressure switch if the inspection result is not within the standard value.

## AIR CONDITIONER > Ambient Sensor

## REMOVAL

1. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>REMOVAL.
3. Remove the ambient sensor.
   (1) Disconnect the connector.
   (2) Release the clips and remove the ambient sensor.




## AIR CONDITIONER > Ambient Sensor

## INSTALLATION

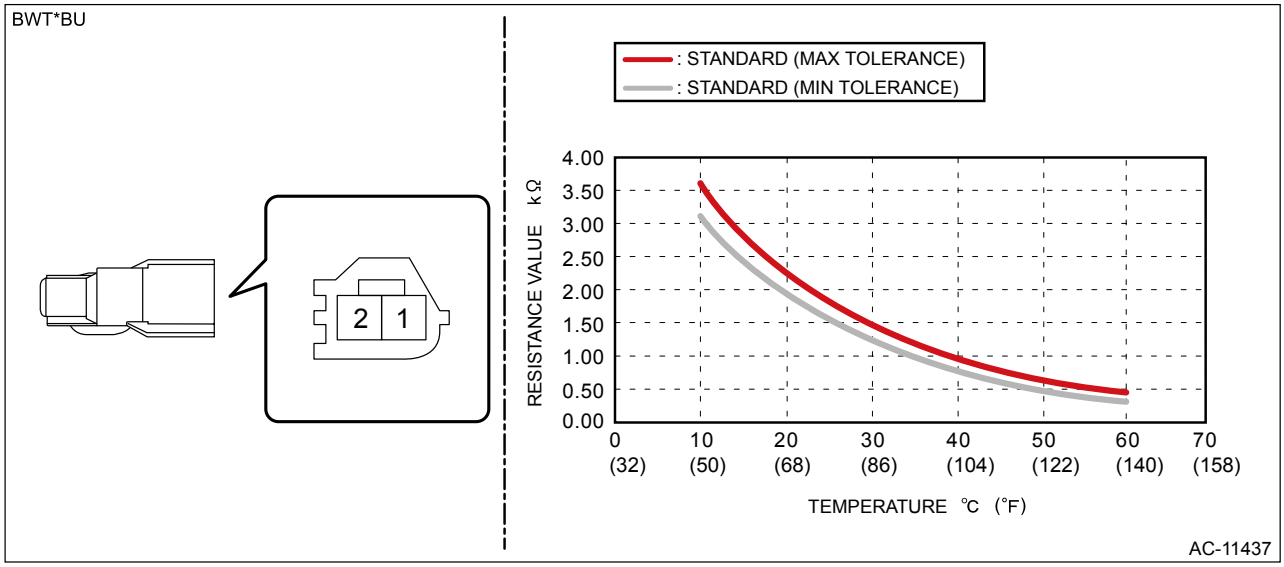
1. Install the ambient sensor and connect the connector.
2. Install the bumper face front. Ref. to EXTERIOR/INTERIOR TRIM>Front Bumper>INSTALLATION.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

## AIR CONDITIONER > Ambient Sensor

## INSPECTION

1. Visually check the ambient sensor for dirt or damage, and clean or replace as necessary.
2. Measure the resistance between connector terminals.

**Caution:**
**During inspection, be careful not to touch the sensor end in order to avoid misjudgment due to body temperature.**




| Terminal No. | Inspection conditions | Standard |
|---|---|---|
| 2 — 1 | 10°C (50°F) | 3.09 — 3.66 kΩ |
| | 15°C (59°F) | 2.47 — 2.86 kΩ |
| | 20°C (68°F) | 1.99 — 2.25 kΩ |
| | 25°C (77°F) | 1.62 — 1.79 kΩ |
| | 30°C (86°F) | 1.29 — 1.46 kΩ |
| | 35°C (95°F) | 1.04 — 1.20 kΩ |
| | 40°C (104°F) | 0.84 — 0.99 kΩ |
| | 45°C (113°F) | 0.68 — 0.82 kΩ |
| | 50°C (122°F) | 0.56 — 0.68 kΩ |
| | 55°C (131°F) | 0.46 — 0.57 kΩ |
| | 60°C (140°F) | 0.38 — 0.48 kΩ |

***3.*** Replace the ambient sensor if the inspection result is not within the standard value.

## AIR CONDITIONER > Sunload Sensor (Auto A/C Model)

### NOTE

The sunload sensor is integrated with the auto light sensor.
For operation procedures for sunload sensor, refer to “Light Control Sensor” in “LIGHTING SYSTEM” section. Ref. to LIGHTING SYSTEM>Light Control Sensor.

## AIR CONDITIONER > Sunload Sensor (Auto A/C Model)

### INSPECTION

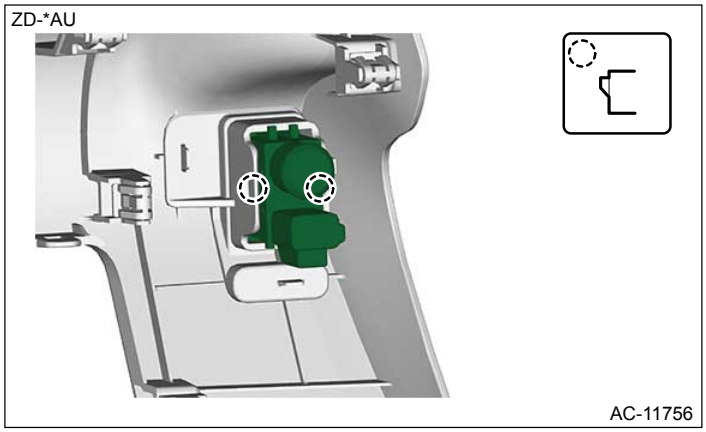
1. Read the DTC of [Air Conditioner] using the Subaru Select Monitor. Ref. to COMMON (DIAGNOSTICS)>Diagnostic Trouble Code (DTC).
2. If the following diagnosis code (DTC) is displayed, refer to “Diagnostic Procedure with Diagnostic Trouble Code (DTC)” in “AIR CONDITIONER (DIAGNOSTICS)” section.
   - DTC B14A1 SUNLOAD SENSOR CIRCUIT LOW/OPEN: Ref. to AIR CONDITIONER(DIAGNOSTICS)>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC B14A1 SUNLOAD SENSOR CIRCUIT LOW/OPEN.
   - DTC B14A2 SUNLOAD SENSOR CIRCUIT SHORT-CIRCUIT: Ref. to AIR CONDITIONER(DIAGNOSTICS)>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC B14A2 SUNLOAD SENSOR CIRCUIT SHORT-CIRCUIT.

## AIR CONDITIONER > In-Vehicle Sensor (Auto A/C Model)

### REMOVAL

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL > INSIDE.
3. Release the claws and remove the in-vehicle sensor.




## AIR CONDITIONER > In-Vehicle Sensor (Auto A/C Model)

### INSTALLATION

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Install the in-vehicle sensor.
2. Install the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION > INSIDE.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

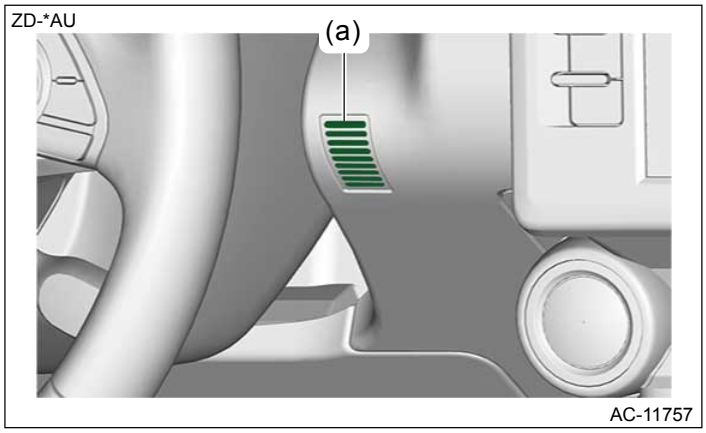
## AIR CONDITIONER > In-Vehicle Sensor (Auto A/C Model)

### INSPECTION

1. Set the vehicle to the following conditions.

| Item | Condition |
|---|---|
| Ignition switch | ON |
| A/C switch | ON |
| Temperature setting | HI (MAX HOT) |
| Air flow control switch | DEF |
| Fan speed | HI (MAX) |

2. Check the suction port (a) for in-vehicle sensor of the cover LWR driver INN.




(1) Put a strip of paper close to the front side of the suction port (a).

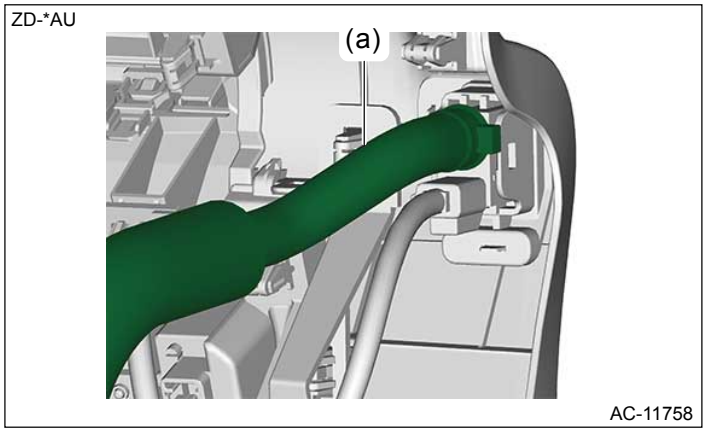
(2) Can you see the paper moving towards the port and the air being sucked into the port?

**Caution:**

**Be careful not to let the paper get sucked into the port.**

- **Yes → Go to Step 5.**
- **No → Go to step 3.**

***3.*** Check the aspirator hose (a).




(1) Are the in-vehicle sensor and aspirator hose connected securely?

(2) Is the aspirator hose free from any kinks or cracks?

- **Yes → Go to Step 4.**
- **No** → Repair or replace the aspirator hose if necessary.

***4.*** Check if there is anything that affects sensing, around the in-vehicle sensor.

(1) Is the in-vehicle sensor hole free from clogging?

(2) Is the peripheral area of in-vehicle sensor free from any heat-producing parts?

- **Yes → Go to Step 5.**
- **No** → Remove everything that affects sensing.

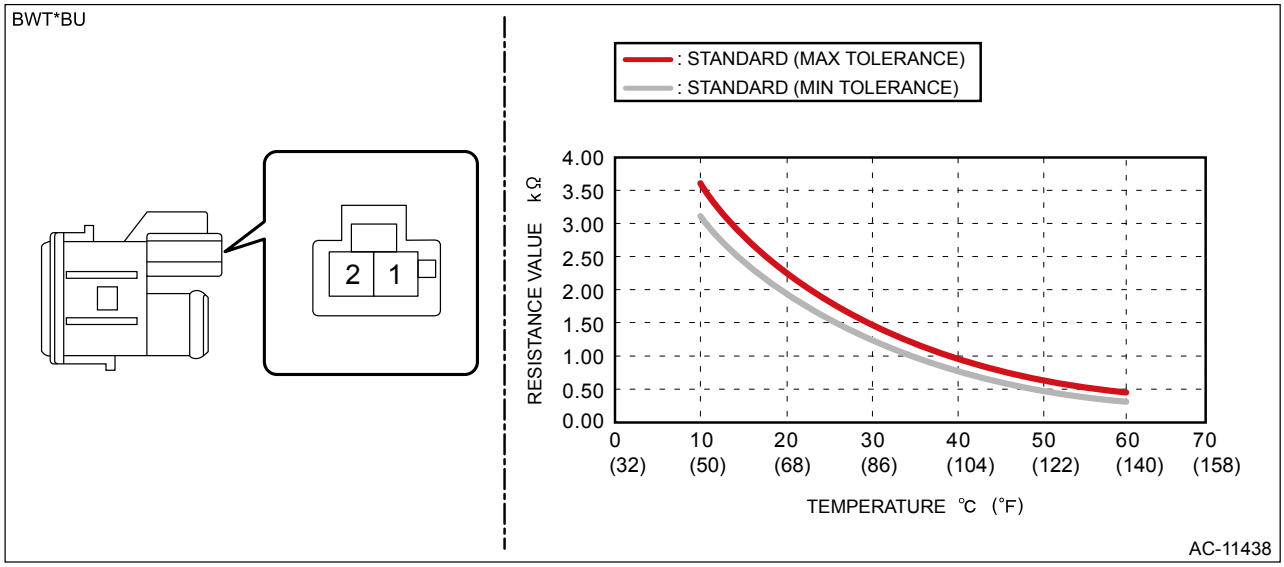
***5.*** Check in-vehicle sensor.

(1) Disconnect the connector.

(2) Measure the resistance between connector terminals.

**Caution:**

**During inspection, be careful not to touch the sensor end in order to avoid misjudgment due to body temperature.**




| Terminal No. | Inspection conditions | Standard |
|---|---|---|
| 1 — 2 | 10°C (50°F) | 3.09 — 3.66 kΩ |
| | 15°C (59°F) | 2.47 — 2.86 kΩ |
| | 20°C (68°F) | 1.99 — 2.25 kΩ |
| | 25°C (77°F) | 1.62 — 1.79 kΩ |
| | 30°C (86°F) | 1.29 — 1.46 kΩ |
| | 35°C (95°F) | 1.04 — 1.20 kΩ |
| | 40°C (104°F) | 0.84 — 0.99 kΩ |
| | 45°C (113°F) | 0.68 — 0.82 kΩ |
| | 50°C (122°F) | 0.56 — 0.68 kΩ |
| | 55°C (122°F) | 0.46 — 0.57 kΩ |
| | 60°C (140°F) | 0.38 — 0.48 kΩ |

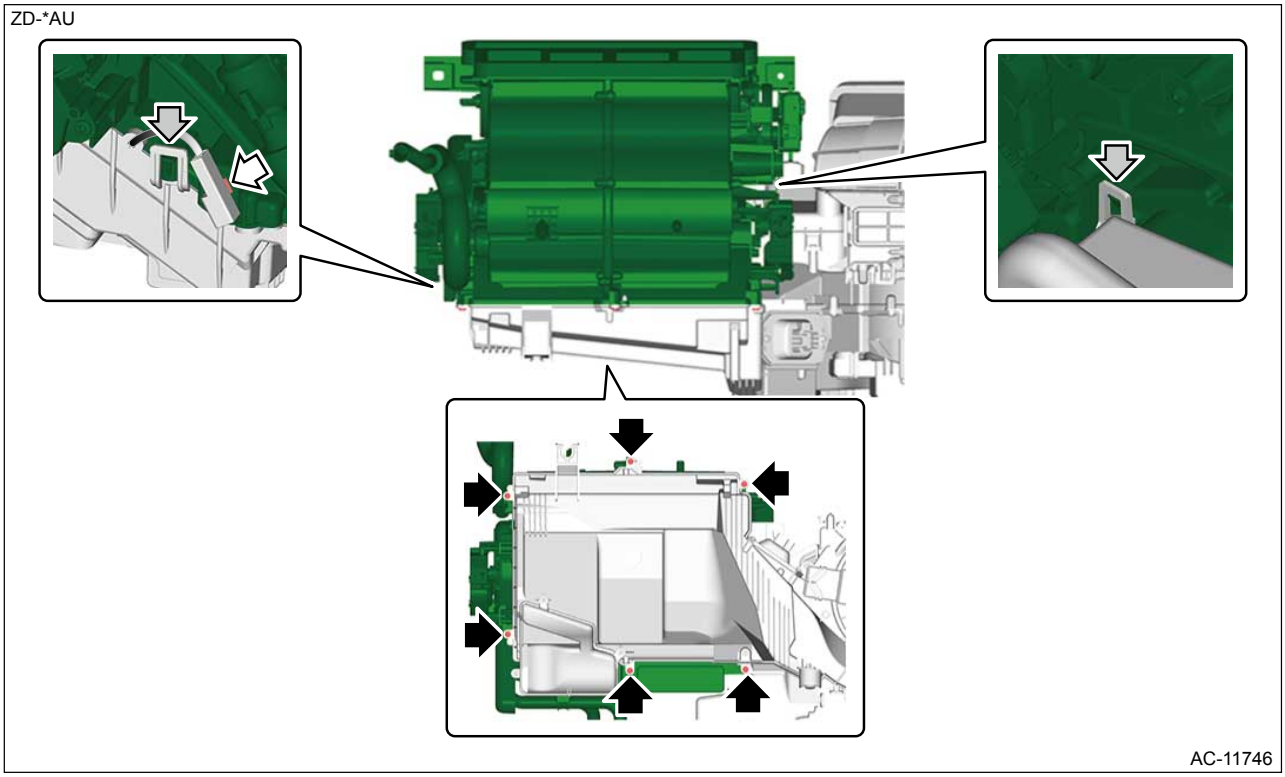
(3) Is the resistance within the standard?

- **Yes** → The in-vehicle sensor is normal.
- **No** → Replace the in-vehicle sensor.

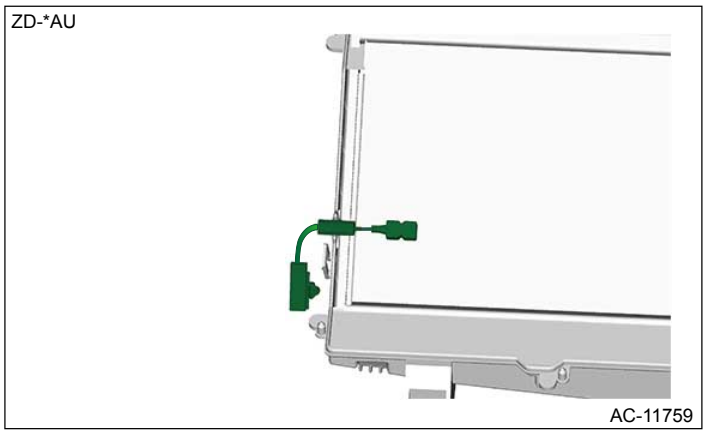
## REMOVAL

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Using the refrigerant recovery system, discharge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Drain the coolant from the radiator. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT > DRAINING OF ENGINE COOLANT.
4. Disconnect the hose pressure suction on the expansion valve side. Ref. to AIR CONDITIONER>Hose and Pipe>REMOVAL.
5. Remove the instrument panel assembly and the beam steering COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.
6. Remove the heater and cooling unit assembly. Ref. to AIR CONDITIONER>Heater and Cooling Unit>REMOVAL.
7. Remove the duct foot passenger. Ref. to AIR CONDITIONER>Air Vent Duct>REMOVAL > FOOT DUCT.
8. Remove the screws and release the connector clips and claws, and then remove the case assembly heater unit.




9. Remove the evaporator sensor.



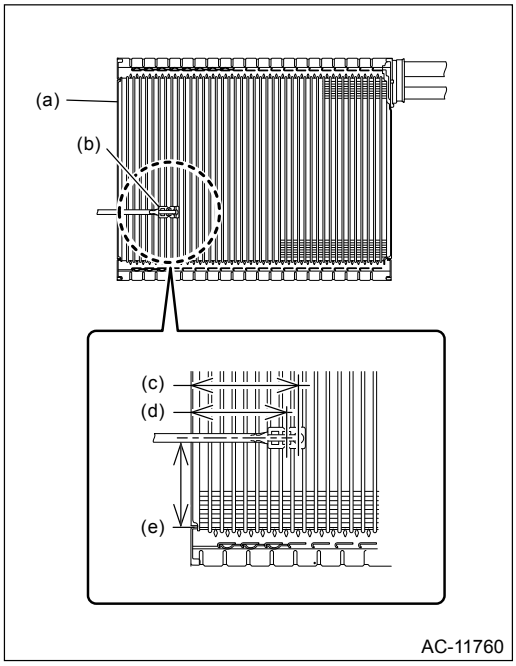

## AIR CONDITIONER > Evaporator Sensor

## INSTALLATION

**Caution:**

- **Replace the O-rings with new parts, and then apply compressor oil to install completely.**
- **Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".** **Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

***1.*** Install the evaporator sensor at the position shown in the figure.




(a) Evaporator ASSY

(b) Evaporator sensor

- When the evaporator assembly is replaced with a new one.
  (c) 61.1 mm (2.41 in)
  (d) 54.4 mm (2.14 in)
  (e) 50 mm (1.97 in)

- When the evaporator assembly is reused.
  (c) 67.8 mm (2.67 in)

(d) 61.1 mm (2.41 in)
(e) 50 mm (1.97 in)

2. Install the case assembly heater unit.
3. Install the duct foot passenger. Ref. to AIR CONDITIONER>Air Vent Duct>INSTALLATION > FOOT DUCT.
4. Install the heater and cooling unit assembly. Ref. to AIR CONDITIONER>Heater and Cooling Unit>INSTALLATION.
5. Install the beam steering COMPL and the instrument panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.
6. Connect the hose pressure suction on the expansion valve side. Ref. to AIR CONDITIONER>Hose and Pipe>INSTALLATION.
7. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
8. Fill engine coolant. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT > FILLING OF ENGINE COOLANT.

## AIR CONDITIONER > Evaporator Sensor

### INSPECTION

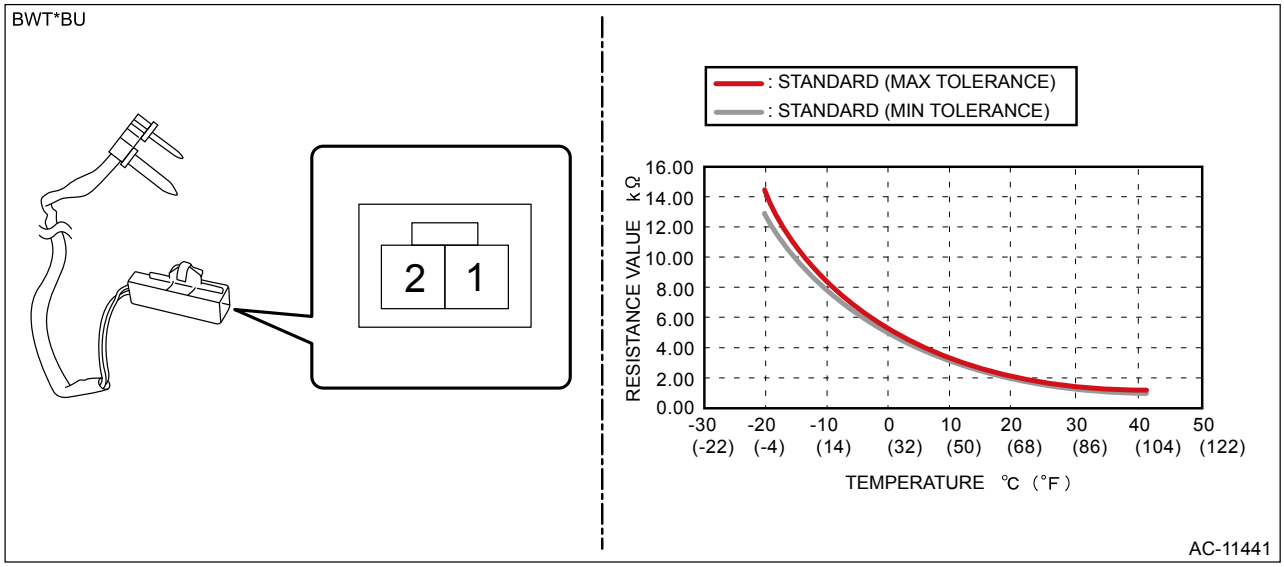
1. Prepare the vehicle.
   - Place the vehicle in the workshop or in the shade and windless condition.
   - Open all windows.
   - Check that the ambient temperature is 25 — 40 °C (77 — 104 °F) and that the humidity is 30 — 80 %.
2. Set the vehicle to the following conditions.

| Item | Condition |
|---|---|
| Engine | Idling |
| Air vent grille | Full open |
| A/C switch | OFF |
| Temperature setting | LO (MAX COOL) |
| FRESH/RECIRC position | RECIRC |
| Air flow control position | VENT |
| Fan speed | HI (MAX) |

3. Using the Subaru Select Monitor, check the evaporator sensor.
   (1) Display [Evaporator Temperature Target] on the [Data monitor] of [Air Conditioner]. Ref. to COMMON (DIAGNOSTICS)>Data Monitor.
   (2) Idle the engine for 15 minutes, and then compare the air flow outlet temperature with [Evaporator Temperature Target].

   **Note:**
   **For outlet opening temperature, measure the average temperature of center grille and side grille using a thermometer.**

   (3) Is the difference between outlet opening temperature and [Evaporator Temperature Target] by 3°C (5.4°F) or more?
   - **Yes** → **Go to Step 4.**
   - **No** → Evaporator sensor is normal.
4. Check the evaporator sensor.
   (1) Disconnect the connector.
   (2) Measure the resistance between connector terminals.




| Terminal No. | Inspection conditions | Standard |
|---|---|---|
| 1 — 2 | −20°C (-4°F) | 13.584 — 14.541 kΩ |
| | −15°C (5°F) | 10.34 — 10.946 kΩ |
| | −10°C (14°F) | 7.938 — 8.313 kΩ |
| | −5°C (23°F) | 6.143 — 6.366 kΩ |
| | 0°C (32°F) | 4.79 — 4.914 kΩ |
| | 5°C (41°F) | 3.718 — 3.829 kΩ |
| | 10°C (50°F) | 2.889 — 3.031 kΩ |
| | 15°C (59°F) | 2.247 — 2.435 kΩ |
| | 20°C (68°F) | 1.785 — 1.952 kΩ |
| | 25°C (77°F) | 1.427 — 1.574 kΩ |
| | 30°C (86°F) | 1.149 — 1.278 kΩ |
| | 35°C (95°F) | 0.931 — 1.044 kΩ |
| | 40°C (104°F) | 0.759 — 0.858 kΩ |

(3) Is the resistance within the standard?

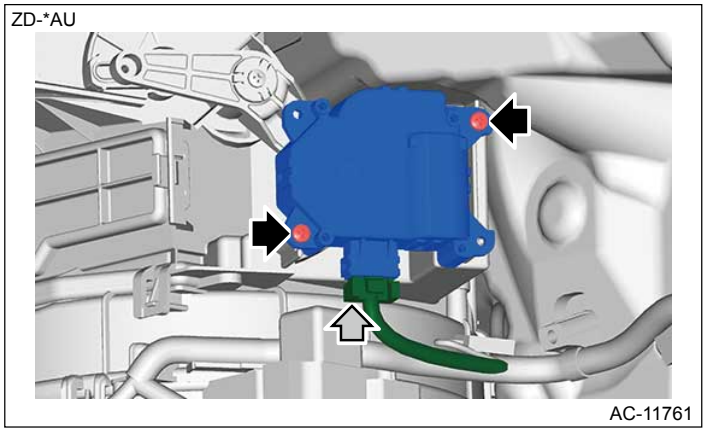
- **Yes** → Evaporator sensor is normal.
- **No** → Replace the evaporator sensor.

## AIR CONDITIONER > FRESH/RECIRC Door Actuator

### REMOVAL

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL > GLOVE BOX LID.
3. Remove the boot assembly parking brake and the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
4. Remove the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>REMOVAL.
5. Remove the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL > INSIDE.
6. Remove the cover assembly instrument panel side RH and the panel center UPR assembly. Ref. to AIR CONDITIONER>Air Vent Grille>REMOVAL > CENTER GRILLE.
7. Remove the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>REMOVAL.
8. Remove the heater control assembly. Ref. to AIR CONDITIONER>Control Panel>REMOVAL.
9. Remove the panel instrument passenger. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL > BACK PANEL.
10. Remove the keyless access CM. Ref. to SECURITY AND LOCKS>Keyless Access CM>REMOVAL.
11. Remove the motor actuator intake.
    (1) Disconnect the connector.
    (2) Remove the screws, and remove the motor actuator intake.




## AIR CONDITIONER > FRESH/RECIRC Door Actuator

### INSTALLATION

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Install the motor actuator intake and connect the connector.
2. Install the keyless access CM. Ref. to SECURITY AND LOCKS>Keyless Access CM>INSTALLATION.
3. Install the panel instrument passenger. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>INSTALLATION > BACK PANEL.

4. Install the heater control assembly. Ref. to AIR CONDITIONER>Control Panel>INSTALLATION.
5. Install the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>INSTALLATION.
6. Install the panel center UPR assembly and cover assembly instrument panel side RH. Ref. to AIR CONDITIONER>Air Vent Grille>INSTALLATION > CENTER GRILLE.
7. Install the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION > INSIDE.
8. Install the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>INSTALLATION.
9. Install the console box assembly and the boot assembly parking brake. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
10. Install the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>INSTALLATION > GLOVE BOX LID.
11. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

## AIR CONDITIONER > FRESH/RECIRC Door Actuator

## INSPECTION

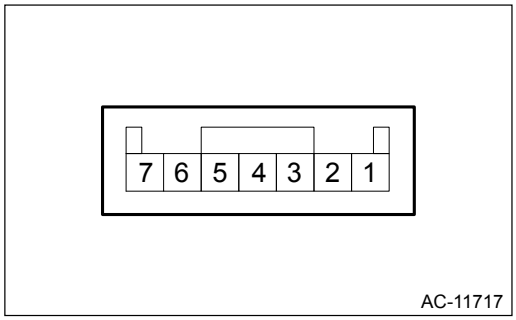
### 1. ACTUATOR LINK

1. Visually check the operating range of the link, and remove the foreign matter if any.
2. Operate the FRESH/RECIRC switch, and check that the link operates normally.
3. If it does not operate normally as the result of inspection, perform a unit inspection of motor actuator intake.

### 2. CHECK ACTUATOR

1. Check the actuator operation when battery voltage is applied between the connector terminals.

**Caution:**
**Disconnect the battery immediately after the actuator stops operation. Otherwise, the motor may be damaged.**




| Terminal No. | Inspection conditions | Operating position |
|---|---|---|
| 7 (+) — 1 (−) | Apply battery voltage. | RECIRC |
| 7 (+) — 3 (−) | | FRESH |

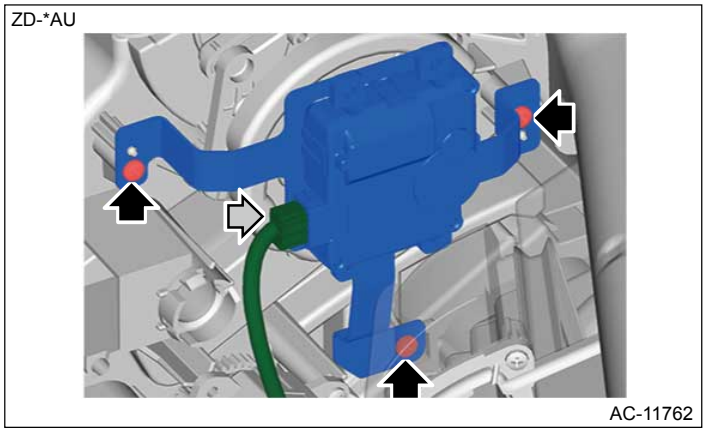
2. If it is found defective as a result of inspection, replace the motor actuator intake.

## AIR CONDITIONER > Mode Door Actuator

### REMOVAL

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL > GLOVE BOX LID.
3. Remove the boot assembly parking brake and the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
4. Remove the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>REMOVAL.
5. Remove the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL > INSIDE.
6. Remove the cover assembly instrument panel side RH and the panel center UPR assembly. Ref. to AIR CONDITIONER>Air Vent Grille>REMOVAL > CENTER GRILLE.
7. Remove the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>REMOVAL.
8. Remove the heater control assembly. Ref. to AIR CONDITIONER>Control Panel>REMOVAL.
9. Remove the panel instrument passenger. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL > BACK PANEL.
10. Remove the motor actuator air mix RH. Ref. to AIR CONDITIONER>Air Mix Door Actuator>REMOVAL > PASSENGER'S SIDE.
11. Remove the motor actuator mode.
    (1) Disconnect the connector.
    (2) Remove the screws and remove the motor actuator mode.




## AIR CONDITIONER > Mode Door Actuator

### INSTALLATION

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. When replacing the motor actuator mode with a new part, apply a thin coat of grease evenly to the contact area inside the rail of the motor actuator mode by using approx. 5 mm (0.2 in) width and approx. 0.1 g (0.004 oz) of grease squeezed out from a tube.

**Note:**
**After installing the actuator, perform 3 — 5 times of adaptation for the grease to fit in.**

**Preparation items:**
Grease: SUBARU genuine grease (part No. 72129AJ000)

2. Install the motor actuator mode and connect the connector.
3. Install the motor actuator air mix RH. Ref. to AIR CONDITIONER>Air Mix Door Actuator>INSTALLATION > PASSENGER'S SIDE.
4. Install the panel instrument passenger. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>INSTALLATION > BACK PANEL.
5. Install the heater control assembly. Ref. to AIR CONDITIONER>Control Panel>INSTALLATION.
6. Install the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>INSTALLATION.
7. Install the panel center UPR assembly and cover assembly instrument panel side RH. Ref. to AIR CONDITIONER>Air Vent Grille>INSTALLATION > CENTER GRILLE.
8. Install the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION > INSIDE.
9. Install the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>INSTALLATION.
10. Install the console box assembly and the boot assembly parking brake. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
11. Install the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>INSTALLATION > GLOVE BOX LID.
12. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

## AIR CONDITIONER > Mode Door Actuator

## INSPECTION

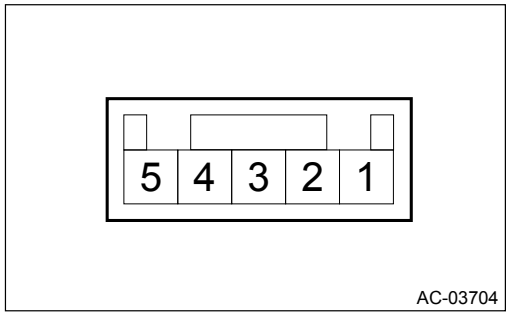
### 1. ACTUATOR LINK

1. Visually check the operating range of the link, and remove the foreign matter if any.
2. Operate the air flow control dial or switch to check that the link operates normally.
3. If it does not operate normally as the result of inspection, perform a unit inspection of motor actuator mode.

### 2. CHECK ACTUATOR OPERATION

1. Check the actuator operation when battery voltage is applied between the connector terminals.

**Caution:**
**Disconnect the battery immediately after the actuator stops operation. Otherwise, the motor may be damaged.**




| Terminal No. | Inspection conditions | Operating position |
|---|---|---|
| 5 (+) — 4 (−) | Apply battery voltage. | DEF |
| 4 (+) — 5 (−) | | FACE |

2. Measure the resistance between connector terminals.

| Terminal No. | Inspection conditions | Standard |
|---|---|---|
| 1 — 3 | Always | 4.2 — 7.8 kΩ |

**3.** Connect the connector, turn the ignition switch to ON, and check the voltage between actuator terminals.

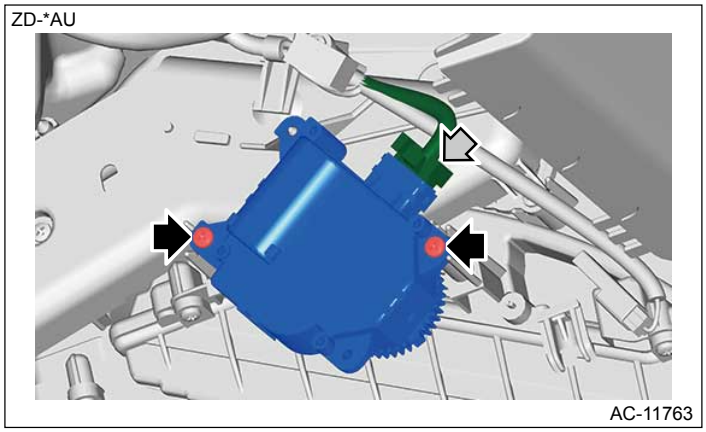
| Terminal No. | Inspection conditions | Standard |
|---|---|---|
| 2 (+) — 1 (−) | FACE | Approx. 4.5 V |
| | DEF | Approx. 0.7 V |

**4.** Replace the motor actuator mode if it is found defective as a result of inspection.

## REMOVAL

### 1. DRIVER'S SIDE

1. If reusing the motor actuator air mix, perform the following procedures.
   (1) While the part is installed to the vehicle, turn the temperature setting to the MAX-COOL position.
   (2) Keep the condition in step (1) for 30 seconds.
2. Disconnect the ground terminal from battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the motor actuator air mix.
   (1) Disconnect the connector.
   (2) Remove the screws and remove the motor actuator air mix.

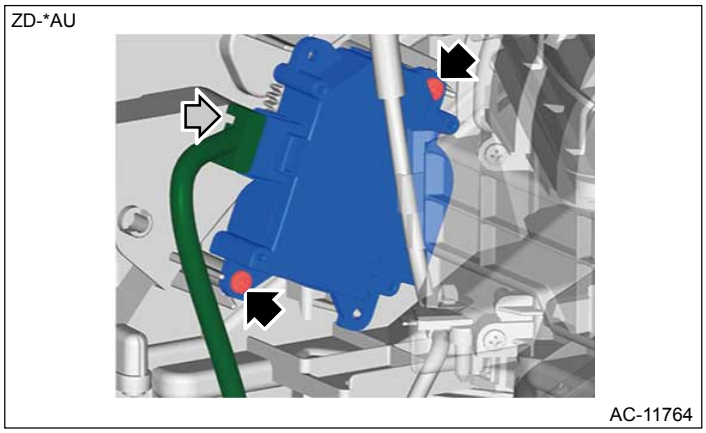



### 2. PASSENGER'S SIDE

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. If reusing the motor actuator air mix, perform the following procedures.
   (1) While the part is installed to the vehicle, turn the temperature setting to the MAX-COOL position.
   (2) Keep the condition in step (1) for 30 seconds.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Remove the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL > GLOVE BOX LID.
4. Remove the boot assembly parking brake and the console box assembly. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>REMOVAL.
5. Remove the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>REMOVAL.
6. Remove the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL > INSIDE.
7. Remove the cover assembly instrument panel side RH and the panel center UPR assembly. Ref. to AIR CONDITIONER>Air Vent Grille>REMOVAL > CENTER GRILLE.
8. Remove the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>REMOVAL.
9. Remove the heater control assembly. Ref. to AIR CONDITIONER>Control Panel>REMOVAL.
10. Remove the panel instrument passenger. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL > BACK PANEL.
11. Remove the motor actuator air mix.
    (1) Disconnect the connector.

(2) Remove the screws and remove the motor actuator air mix.




## AIR CONDITIONER > Air Mix Door Actuator

## INSTALLATION

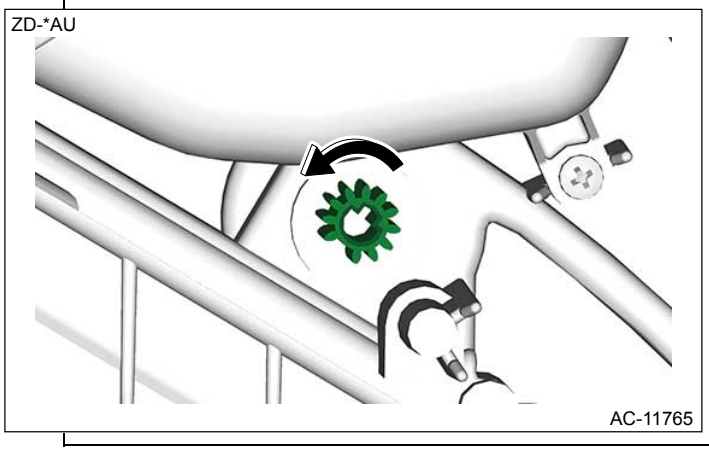
### 1. DRIVER'S SIDE

***1.*** Install the motor actuator air mix.

(1) Rotate the gear mix slowly in the arrow direction shown in the figure until it stops.

**Caution:**

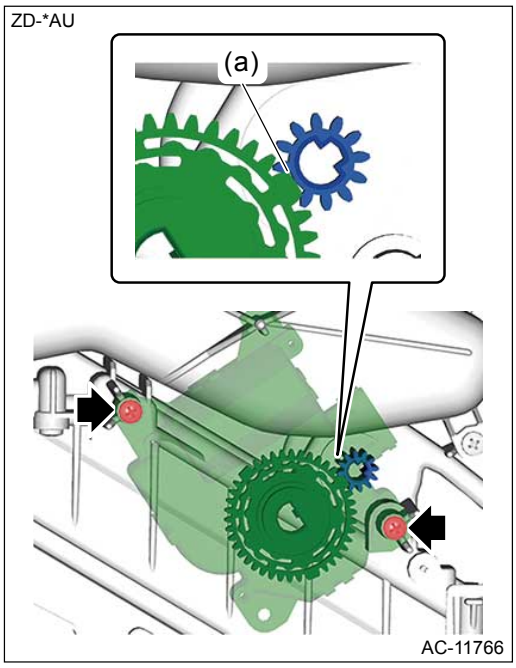
- **Do not rotate excessively.**
- **Be sure to prevent dust or other foreign matters from contacting the greased gear portion.**




(2) Align the cutout of gear (a) as shown in the figure, and install the motor actuator air mix.

**Note:**

**Install it so that the gear position is not displaced.**




(3) Connect the connector.

2. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

## 2. PASSENGER'S SIDE

**Caution:**

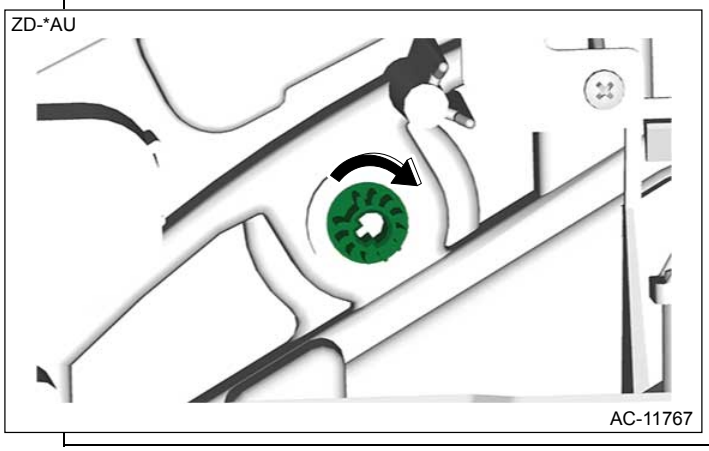
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Install the motor actuator air mix.

(1) Rotate the gear mix slowly in the arrow direction shown in the figure until it stops.

**Caution:**

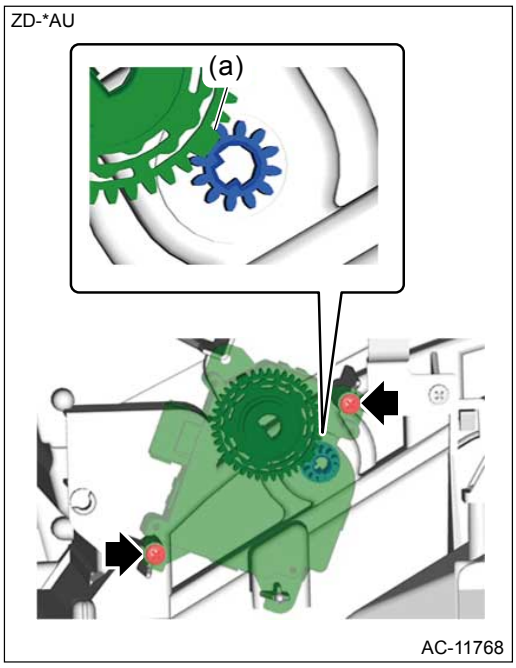
- **Do not rotate excessively.**
- **Be sure to prevent dust or other foreign matters from contacting the greased gear portion.**




(2) Align the cutout of gear (a) as shown in the figure, and install the motor actuator air mix.

**Note:**

**Install it so that the gear position is not displaced.**




(3) Connect the connector.

2. Install the panel instrument passenger. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>INSTALLATION > BACK PANEL.
3. Install the heater control assembly. Ref. to AIR CONDITIONER>Control Panel>INSTALLATION.
4. Install the center information display assembly. Ref. to ENTERTAINMENT & MONITORING>Cockpit Display>INSTALLATION.
5. Install the panel center UPR assembly and cover assembly instrument panel side RH. Ref. to AIR CONDITIONER>Air Vent Grille>INSTALLATION > CENTER GRILLE.
6. Install the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION > INSIDE.
7. Install the cover center side. Ref. to EXTERIOR/INTERIOR TRIM>Center Console>INSTALLATION.
8. Install the console box assembly and the boot assembly parking brake. Ref. to EXTERIOR/INTERIOR TRIM>Console Box>INSTALLATION.
9. Install the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>INSTALLATION > GLOVE BOX LID.
10. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

## AIR CONDITIONER > Air Mix Door Actuator

## INSPECTION

### 1. ACTUATOR LINK

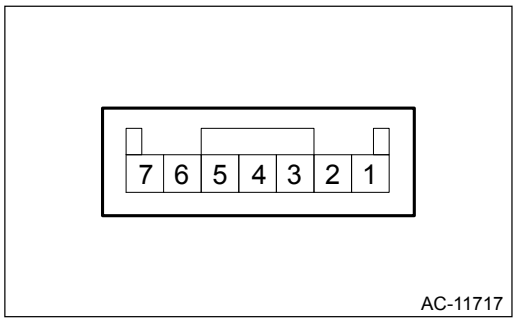
1. Visually check the operating range of the link, and remove the foreign matter if any.
2. Operate the temperature setting to check that the link operates normally.
3. If it does not operate normally as the result of inspection, perform a unit inspection of motor actuator air mix.

### 2. CHECK ACTUATOR OPERATION

1. Check the actuator operation when battery voltage is applied between the connector terminals.

**Caution:**

**Disconnect the battery immediately after the actuator stops operation. Otherwise, the motor may be damaged.**




- Driver’s side

| Terminal No. | Inspection conditions | Operating position |
|---|---|---|
| 7 (+) — 6 (−) | Connect battery to the terminals | COOL |
| 6 (+) — 7 (−) | | HOT |

- Passenger’s side

| Terminal No. | Inspection conditions | Operating position |
|---|---|---|
| 7 (+) — 6 (−) | Connect battery to the terminals | HOT |
| 6 (+) — 7 (−) | | COOL |

**2.** Measure the resistance between connector terminals.

| Terminal No. | Inspection conditions | Standard |
|---|---|---|
| 1 — 3 | Always | 4.2 — 7.8 kΩ |

**3.** Connect the connector, turn the ignition switch to ON, and check the voltage between actuator terminals.

- Driver’s side

| Terminal No. | Inspection conditions | Standard |
|---|---|---|
| 5 (+) — 1 (−) | HOT | Approx. 1.0 V |
| | COOL | Approx. 4.3 V |

- Passenger’s side

| Terminal No. | Inspection conditions | Standard |
|---|---|---|
| 5 (+) — 3 (−) | HOT | Approx. 0.7 V |
| | COOL | Approx. 4.0 V |

**4.** Replace the motor actuator air mix if it is found defective as a result of inspection.

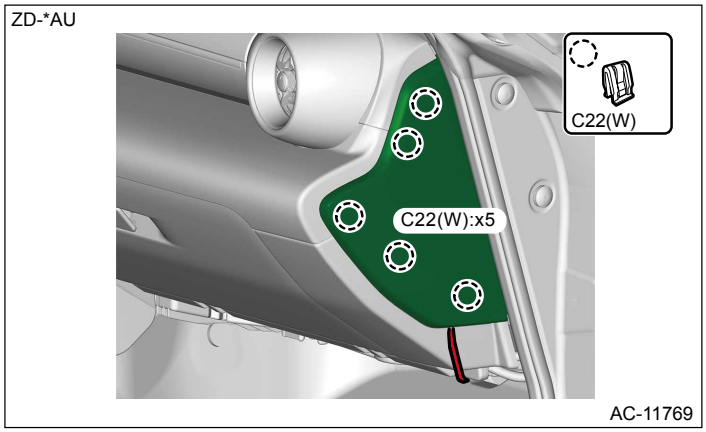
## REMOVAL

### 1. CENTER GRILLE

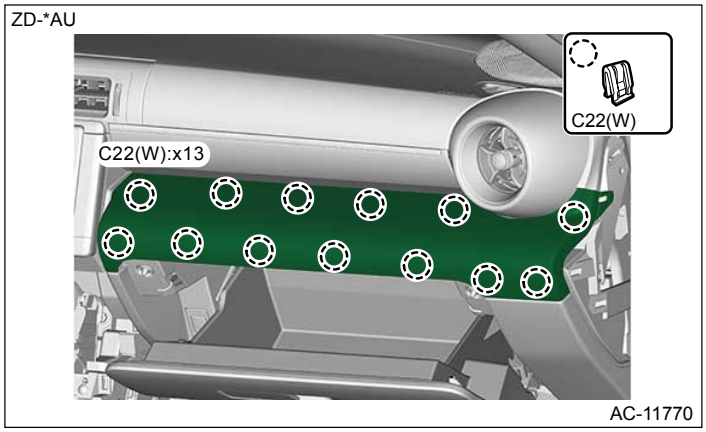
**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL > INSIDE.
3. Open the pocket COMPL.
4. Remove the clips, and remove the cover assembly instrument panel side RH.

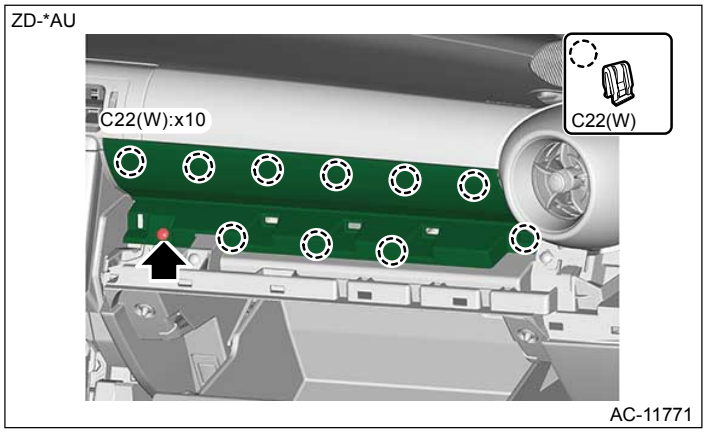
**Note:**
- **Use a plastic remover.**
- **If removing is difficult, remove the weather strip and remove it from the gap using a plastic remover.**



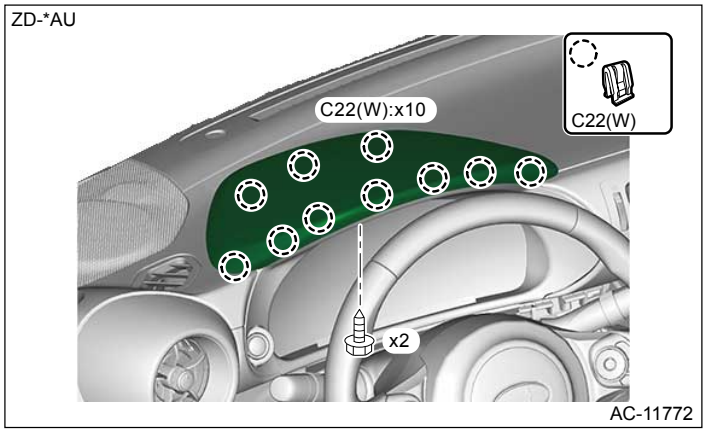

5. Release the clips, and remove the ornament assembly passenger.




6. Remove the screws and release the clips, and remove the cover assembly passenger.



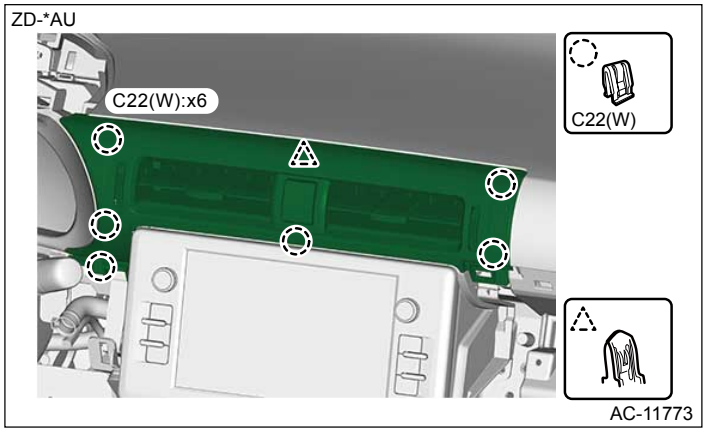

**7.** Release the screws and clips, then detach the visor assembly UPR.




**8.** Remove the panel center UPR assembly.

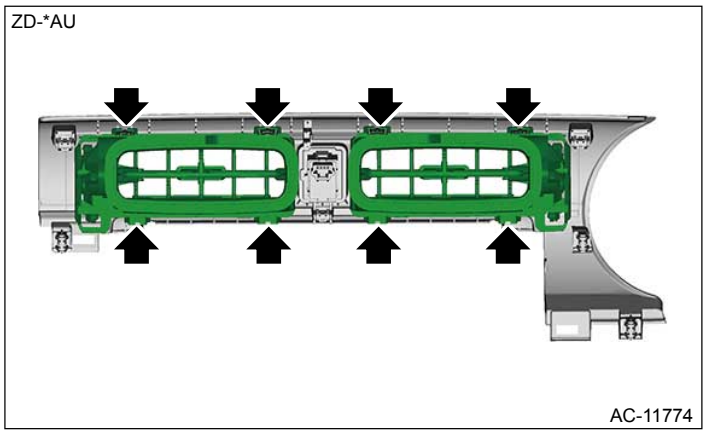
**Caution:**
**Be careful not to damage the panel center UPR assembly.**

(1) Release the clips and claws.




(2) Disconnect the connector, and remove the panel center UPR assembly.

**9.** Release the claws, and then remove the grille ventilation assembly center RH and LH.



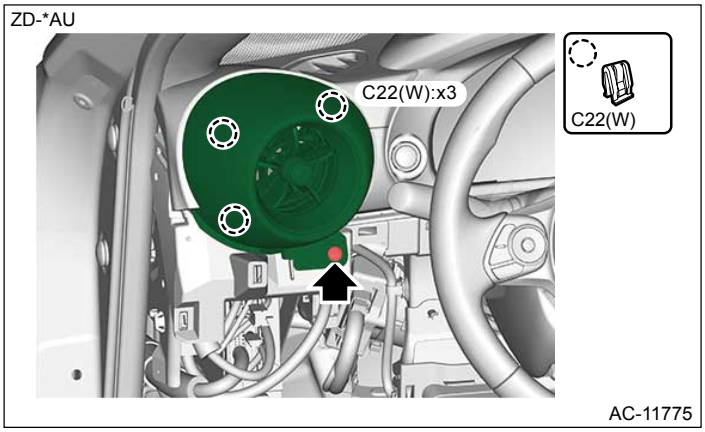

## 2. SIDE GRILLE

- **DRIVER'S SIDE**

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the cover LWR driver OUT. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>REMOVAL > OUTSIDE.
3. Remove the screws and release and clips, then detach the grille ventilation side.

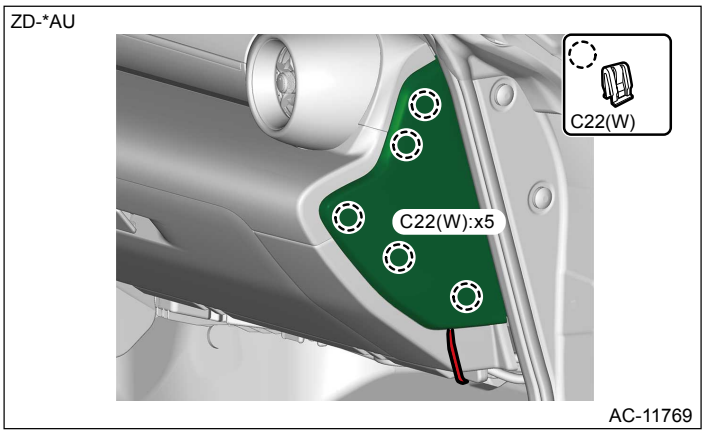
**Caution:**
**Be careful not to damage the grille ventilation side.**



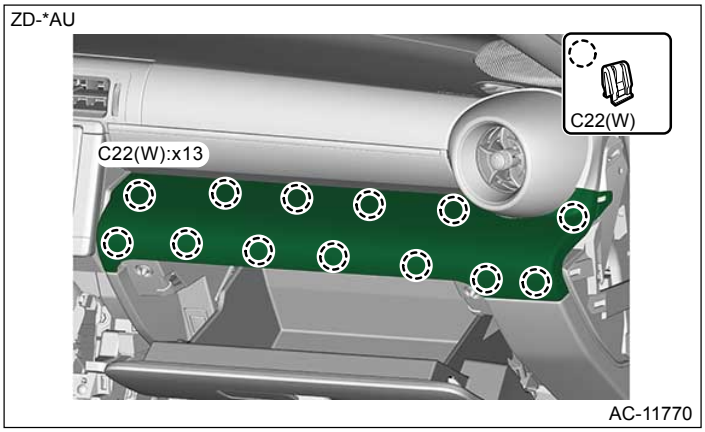

- **PASSENGER'S SIDE**

1. Remove the clips, and remove the cover assembly instrument panel side RH.

**Note:**
- **Use a plastic remover.**
- **If removing is difficult, remove the weather strip and remove it from the gap using a plastic remover.**

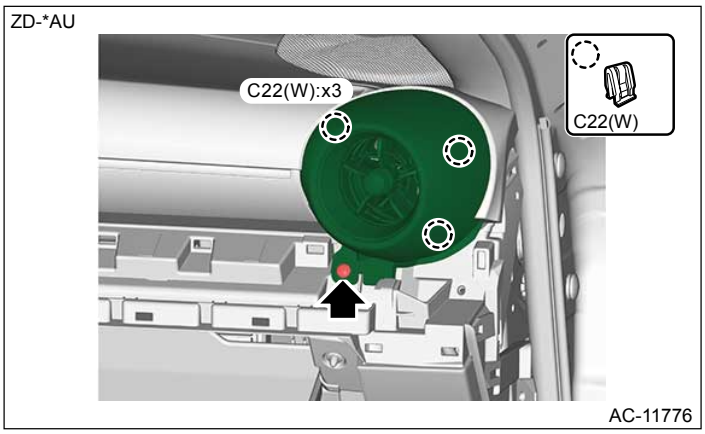



**2.** Release the clips, and remove the ornament assembly passenger.




**3.** Remove the screws and release and clips, then detach the grille ventilation side.

**Caution:**
**Be careful not to damage the grille ventilation side.**




## AIR CONDITIONER > Air Vent Grille

## INSTALLATION

### 1. CENTER GRILLE

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".** **Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

**Note:**
**Make sure that the grille assembly is inserted into the air vent duct correctly.**

1. Install the grille ventilation assembly center.
2. Connect the connector and install the panel center UPR assembly.
3. Install the visor assembly UPR.
4. Install the cover assembly passenger.
5. Install the ornament assembly passenger.
6. Install the cover assembly instrument panel side RH.
7. Install the cover LWR driver INN. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION > INSIDE.
8. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

## 2. SIDE GRILLE

**Note:**
**Make sure that the grille assembly is inserted into the air vent duct correctly.**

- **DRIVER'S SIDE**

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Install the grille ventilation side.
2. Install the cover LWR driver OUT. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Lower Cover>INSTALLATION > OUTSIDE.
3. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

- **PASSENGER'S SIDE**

1. Install the grille ventilation side.
2. Install the ornament assembly passenger.
3. Install the cover assembly instrument panel side RH.

### AIR CONDITIONER > Air Vent Grille

### INSPECTION

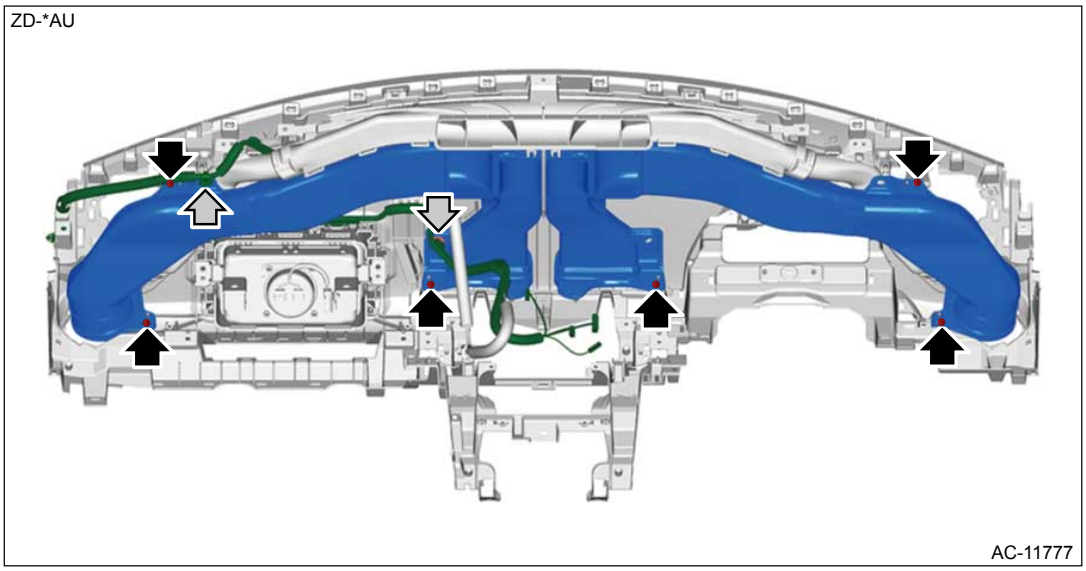
1. Check that the direction and the amount of air can be adjusted smoothly. Replace the grille assembly if faulty.
2. Check that the adjustment can be maintained in each position. Replace the grille assembly if faulty.

## REMOVAL

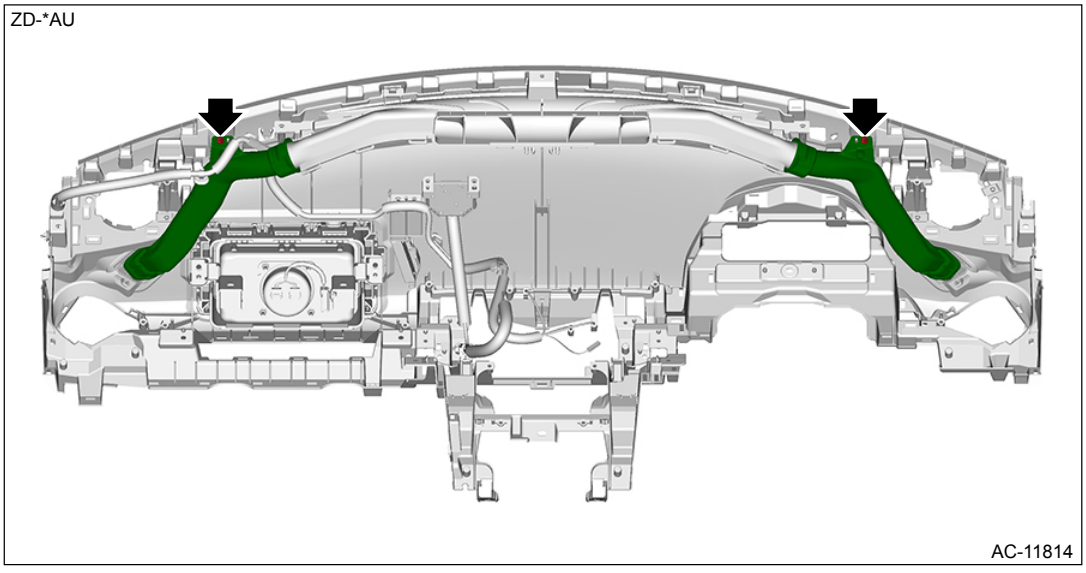
### 1. FRONT DUCT

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

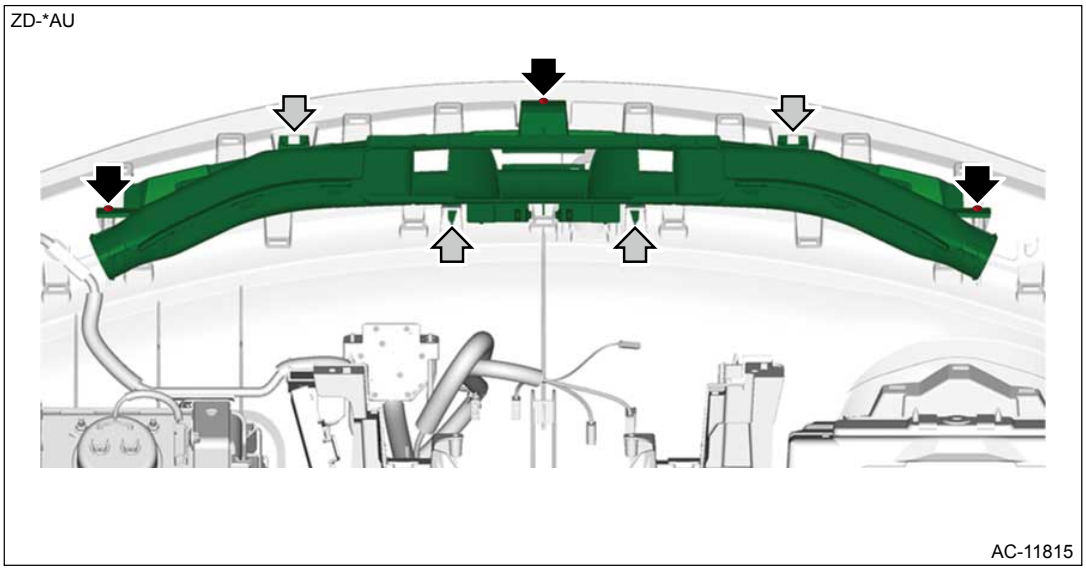
1. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
2. Remove the instrument panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.
3. Remove the duct ventilation.
   (1) Remove the harness clamp.
   (2) Remove the screws and remove the duct ventilation.




4. Remove the screws and detach the duct side defroster.




5. Remove the screws and release the claws, then detach the nozzle front defroster assembly.

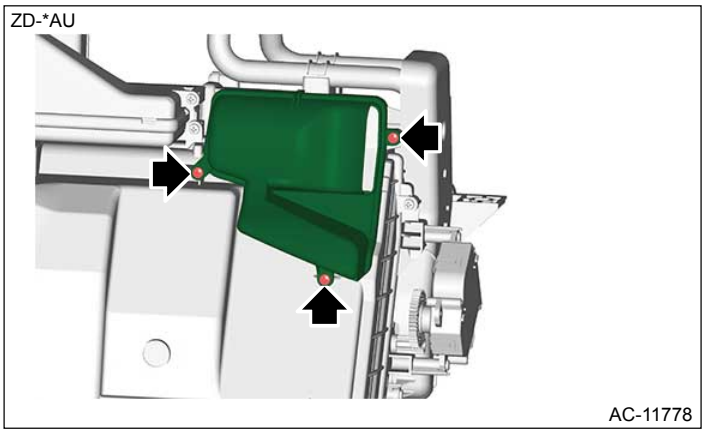



## 2. FOOT DUCT

- **DRIVER'S SIDE**

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

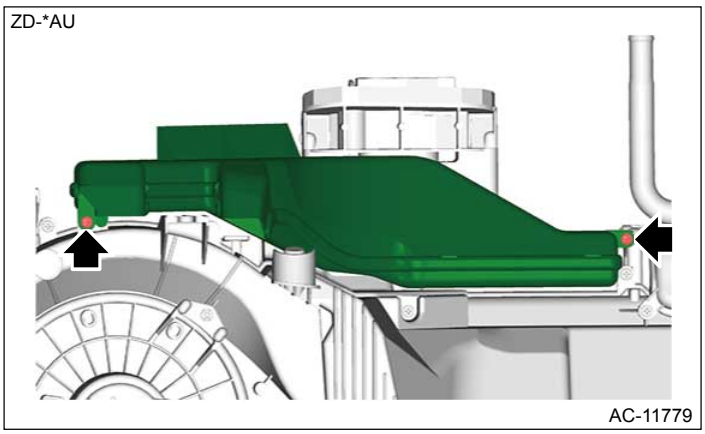
1. Using the refrigerant recovery system, discharge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Drain the coolant from the radiator. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT > DRAINING OF ENGINE COOLANT.
4. Disconnect the hose pressure suction on the expansion valve side. Ref. to AIR CONDITIONER>Hose and Pipe>REMOVAL.
5. Remove the instrument panel assembly and the beam steering COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.
6. Remove the heater and cooling unit assembly. Ref. to AIR CONDITIONER>Heater and Cooling Unit>REMOVAL.
7. Remove the screws, and remove the duct foot driver.




- **PASSENGER'S SIDE**

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Using the refrigerant recovery system, discharge refrigerant. Ref. to AIR CONDITIONER>Refrigerant Recovery Procedure>PROCEDURE.
2. Disconnect the ground terminal from the battery sensor, and wait for at least 60 seconds before starting work. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
3. Drain the coolant from the radiator. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT > DRAINING OF ENGINE COOLANT.
4. Disconnect the hose pressure suction on the expansion valve side. Ref. to AIR CONDITIONER>Hose and Pipe>REMOVAL.
5. Remove the instrument panel assembly and the beam steering COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>REMOVAL.
6. Remove the heater and cooling unit assembly. Ref. to AIR CONDITIONER>Heater and Cooling Unit>REMOVAL.
7. Remove the screws and remove the duct foot passenger.




## AIR CONDITIONER > Air Vent Duct

## INSTALLATION

### 1. FRONT DUCT

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Install the nozzle front defroster assembly.
2. Install the duct side defroster.
3. Install the duct ventilation.
4. Install the instrument panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.

### 2. FOOT DUCT

- **DRIVER'S SIDE**

**Caution:**
**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Install the duct foot driver.
2. Install the heater and cooling unit assembly. Ref. to AIR CONDITIONER>Heater and Cooling Unit>INSTALLATION.
3. Install the beam steering COMPL and the instrument panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.
4. Connect the hose pressure suction on the expansion valve side. Ref. to AIR CONDITIONER>Hose and Pipe>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
6. Fill engine coolant. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT > FILLING OF ENGINE COOLANT.

- **PASSENGER'S SIDE**

**Caution:**

**Before handling the airbag system components, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". Ref. to AIRBAG SYSTEM>General Description>CAUTION.**

1. Install the duct foot passenger.
2. Install the heater and cooling unit assembly. Ref. to AIR CONDITIONER>Heater and Cooling Unit>INSTALLATION.
3. Install the beam steering COMPL and the instrument panel assembly. Ref. to EXTERIOR/INTERIOR TRIM>Instrument Panel Assembly>INSTALLATION.
4. Connect the hose pressure suction on the expansion valve side. Ref. to AIR CONDITIONER>Hose and Pipe>INSTALLATION.
5. Connect the ground terminal to battery sensor. Ref. to REPAIR CONTENTS>NOTE > BATTERY.
6. Fill engine coolant. Ref. to COOLING(H4DO)>Engine Coolant>REPLACEMENT > FILLING OF ENGINE COOLANT.

## AIR CONDITIONER > Air Vent Duct

### INSPECTION

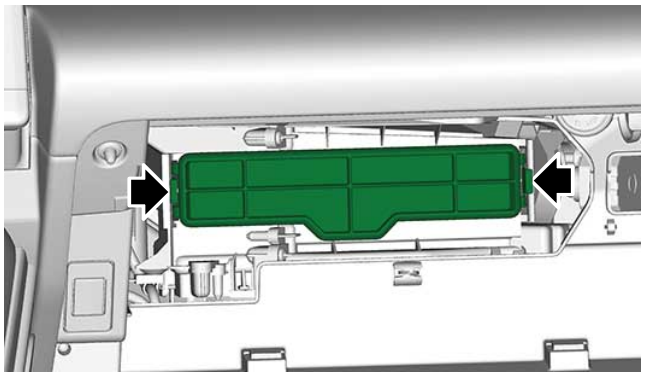
1. Check installation condition of duct. Connect the duct properly if defective.
2. Check that no foreign matter is mixed in the duct. Remove the foreign matter if any.

## AIR CONDITIONER > A/C Filter

## REPLACEMENT

1. Remove the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>REMOVAL > GLOVE BOX LID.
2. Remove the filter.
   (1) Release the lock and remove the filter cover.

ZD-*AU

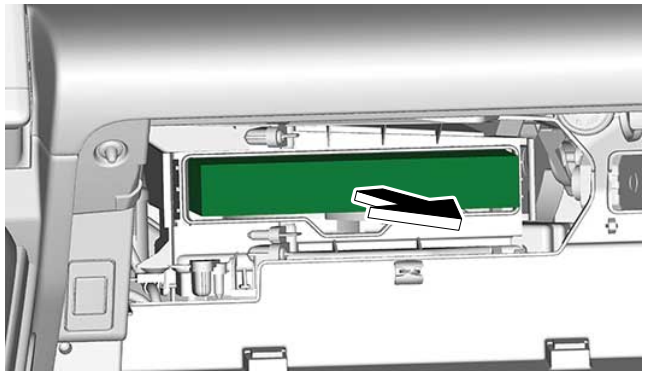


AC-11780

   (2) Remove the filter as shown in the figure.

**Note:**
**Slowly pull out while tilting the front side of the filter downward to prevent dirt or dust from falling inside the case.**

ZD-*AU



AC-11781

3. Install a new filter.
4. Install the filter cover.
5. Install the pocket COMPL. Ref. to EXTERIOR/INTERIOR TRIM>Glove Box>INSTALLATION > GLOVE BOX LID.

## AIR CONDITIONER > A/C Filter

## INSPECTION

Check the A/C filter for dust or dirt, and clean or replace as necessary.

## INSPECTION

For the diagnostics with phenomenon, refer to “Diagnostics with Phenomenon” of “AIR CONDITIONER (DIAGNOSTICS)”.

Ref. to AIR CONDITIONER(DIAGNOSTICS)>Diagnostics with Phenomenon.